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Robots facilitate team building at adults' learning groups for cultural studies

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team-building

- a philosophy of job design in which employees are viewed as members of inter-dependent teams instead of as individual workers.
- refers to a wide range of activities, presented to businesses, schools, sports teams, religious or nonprofit organizations designed for improving team performance.

Improve productivity and functionality

- In the team
  - department (organization, company, factory)
  - study group (university, school)
  - team (sports, camps)
- Among teams
  - departments (of the same organization)
  - consortium

Team-building benefits

- Increased flexibility in skills and abilities
- More productive than work groups with individual mindset
- More beneficial in times of organizational change
- Focuses on group goals to accomplish more beneficial tasks
- Encourage both individual and team development and improvement

Team-building market value

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TEAM BUILDING AND RECREATION ON CALIFO

August 10, 2012

Team Building versus Team Recreation. The two are often intertwined but
and define your team! Team building provides a more specific outcome by
a team proficient. Team recreation can motivate, reward and bond particip
in considering the ingredients you need for a successful team activity.

By embracing the beauty and diversity of California's Central Coast team
organized group activities. Engage your team in activities that benefit the

Team Building Kuala Lumpur | Training and Recreation Ideas

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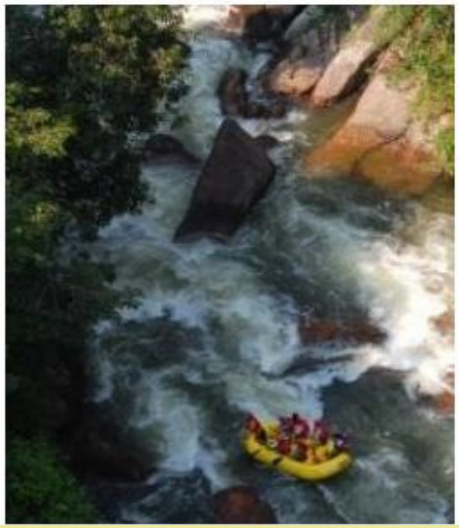
TEAM BUILDING KUALA LUMPUR | Organising a TEAM BUILDING program for your company?



Organising a teambuilding event for your company can be a daunting task. **Team building Kuala Lumpur?** Where do you start, what sort of program, how long, what is the optimum number of participants, what is the budget you are looking at? These can be some of the questions you would need to ask yourself. And the other important question you would need answered is who can organise one for you.

If you are looking for a teambuilding or a team recreation programme departing from Kuala Lumpur, Malaysia (can be even from Petaling Jaya, Subang, Shah Alam, Bangi, etc.) then here is an

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Cristiano Ronaldo Disappointed at Real Madrid; Future in the Club Uncertain

Football predictions for **Real Madrid** now face doubts over Cristiano Ronaldo's reported unhappiness with the club.

The former Manchester United striker expressed his

he did not perform a goal celebration because he is not happy.

Study case

- Intensive ERASMUS program (July 2011): "*Tracing Historical, social & intercultural features*"
- University post/undergraduate students
- 25 Adults - 3 countries
- Intensive program - short period (10 days)
- Previous experience (July 2010) – group recreation effort, outdoor activities

Project goal

- Facilitate the necessary team-building for the intensive ERASMUS learning program for adults
- Save time
- Incorporate the ERASMUS program’s goal and contribute to its theme learning

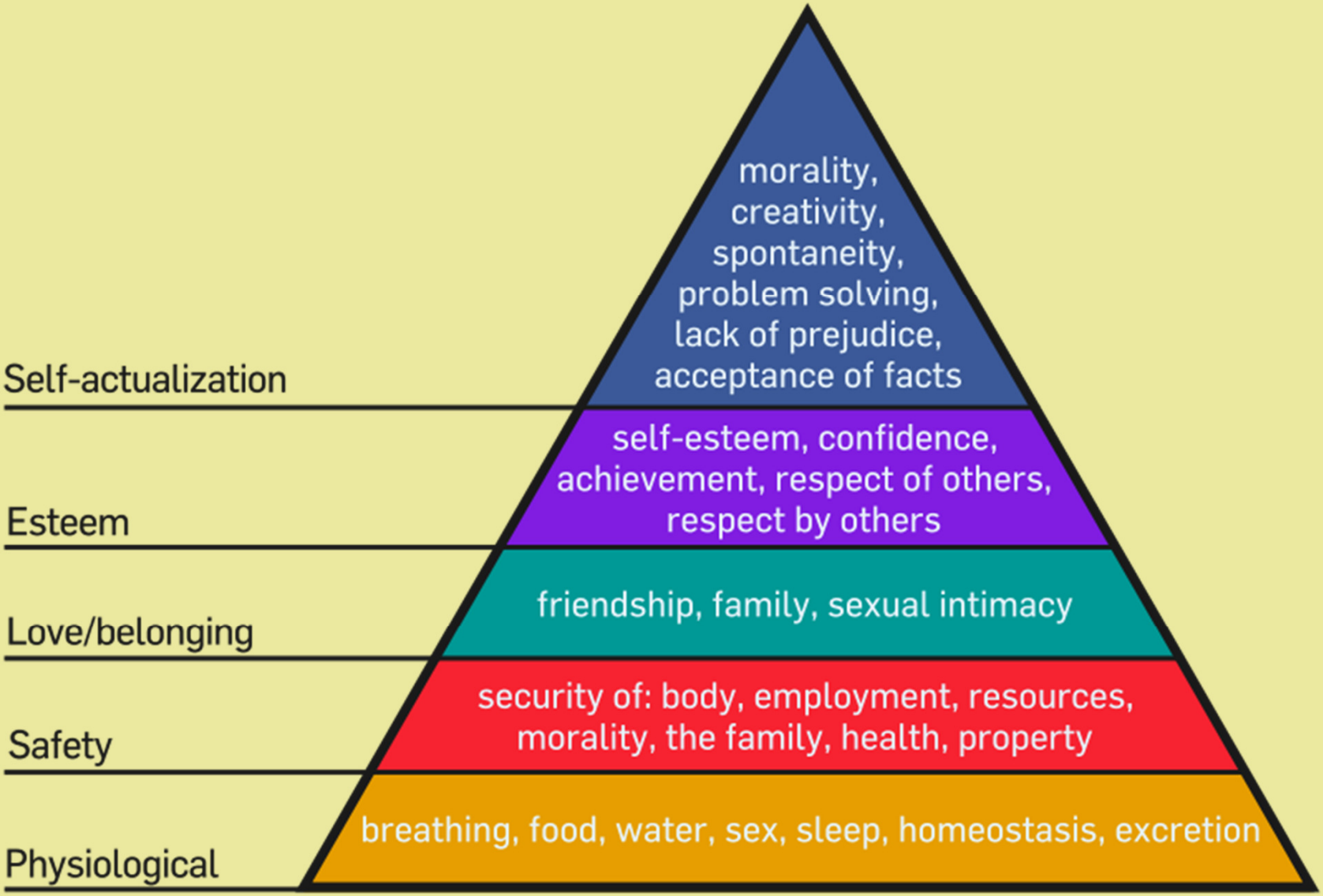
Research goals

- Can robotic activities offer :
  - proper context and activities for team-building for adults
  - learning environment for cultural aspects
  - fulfill adults learning principles

Adults learning principles

- Adults vs children
  - shows higher ability to learn and also acquire knowledge and skills.
  - have accumulated a wealth of information and experience, which can function as a rich resource for learning.
  - learn better if they can self-direct their training and participate actively.
- Adults learn when they are familiar with the training material
- Training should be related to adults' every day life, goals and needs with meaningful instructions
- Adult learners are primarily motivated by internal factors, such as self-esteem, quality of life and job satisfaction.
- They need to feel that they belong to a learning group, with warm relations. The members of the group should accept and support each other and work cooperatively.

Maslow's hierarchy of needs



Adults' learning in teams

- group activities
  - facilitate adult learners to fulfill the most of the above mentioned principles.
- Team building
  - works as an organizational strategy to engage
  - has a positive moderate effect across cognitive, affective, process, and performance outcomes
- Adults form small groups (3-5 persons) and a project is assigned to them
  - because of the small group, they feel more comfortable to express their opinion to their teammates
  - benefits the development of friendly and close relations between members and also increases participants' self-directed learning ability
- The intensive and authentic communication between team members, supports reflective thinking, increases motivation to learn and secures active and critical participation in a social context

team-building stages

Tuckman's Teamwork Theory

performing — Team focused on creative problem solving, productivity

norming — Group begins to be effective, differences are appreciated. Ensure relationship and communication

storming — Characterized by a bid for power. Ensure members get to know one another and collaborate, not competitors

forming — Exploration: members get to know and trust one another, belong to the group, how the group is organized, who is in charge, orientation

Lego's "*Serious Play*" for Adults Team Building

"It is a language, communication tool, problem solving methodology, based on the belief that everyone can contribute to the discussion, the decisions, and the outcome."

1. **Constructing**
2. **Giving meaning**
3. **Making the story**

Project design

- Cultural project on traditional dance and costumes. The topic was included in the program curriculum.
- Purposes:
  - getting to know the culture of Florina (knowledge) and learn to dance (skills)
  - creating interaction, communication, familiarity and acquaintance among learners through activities with robotic constructions (team building).
- The 25 participants were divided to 6 teams (small groups)
- The participants were mixed to prevent possible acquaintances.

Project activities

The educational process was divided into five phases. Each team had to evaluate the other teams, at the end of each phase.

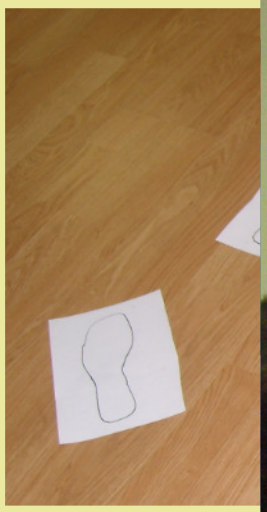
1. introductory or informative
2. best costume contest
3. contest about the synchronization of the robot motion with the repeating patterns of music and dance
4. dance contest between groups
5. teams' evaluation, results

1. introductory or informative

2. best costume contest

3. contest: synchronization of robot motion with the repeating patterns of music and dance

4. dance contest between groups



5. evaluation of teams, results

Teams' competitions results

Teams			1	2	3	4	5	6
Robot	dress	Quality textile	43	38	35	39	38	34
		Art	43	38	35	38	39	35
	Motion control		36	37	36	37	37	39
Human	rhythm		41	42	35	33	38	41
	Steps		41	40	35	31	38	40
	Circle		41	45	38	35	42	42
	Results		245	240	214	213	232	231

Individuals questionnaire

evaluate the educational process and to reflect on this new educational experience

- points/topics worked/learned
- relation with teammates
- edutainment, enjoyment, fulfillment, esteem
- robots' contribution
- learning results
- activities

Robots design

- **Dance capabilities**
  - –move on the floor (towards both axes X & Y)
  - –face in every direction (upper body torso rotation Rz).
- **Motion synchronization capabilities**
  - –microphone
  - –ultrasonic sensor (collision avoidance)
- **Dimensions**
  - –able to perform the “Zaramo” dance on a table
  - –large enough in order to give to the participants the ability to dress it.

Observations – data analysis

- Team-building stages
  - authentic costume and dance observation
  - costume design and construction
  - present/control the robot & dance learning
  - contests results

Questionnaire analysis 1/2

- Almost half of the participants (11/25) claimed that they liked the costume design/construction and the Zaramo dance. Another big group (10/25) liked the cooperation/collaboration between the team members and the team-building spirit.
- The majority of the participants (17/25) stated that they worked together in order to make the costume and to dance and the rest of them (8/25) stated that they cooperated in every phase of the project.
- Almost half of the participants (11/25) claimed that there wasn't any disagreement point in their team and a same amount of participants (11/25) claimed that they had minor disagreements in the costume design activity, which was excused for the stage of storming.
- Participants recognized many different game elements in the activities, like (10/25) synchronizing the robot dance and/or dressing robot, (9/25) cooperating with teammates, (6/25) competing and (3/25) generally having fun.

Questionnaire analysis 2/2

- The majority of the participants claimed that it was their first participation in such activities and they considered them very innovative.
- Half of the participants (13/25) claimed that through the activities they learned to dance Zaramo and design traditional costumes. Almost the same amount of participants (11/25) stated that they learned to cooperate within a team.
- In the total evaluation of the project some of them (10/25) stated that it was important since they learned close cooperation with in a teamwork, or (9/25) claimed that they learned how to interact and have a close contact as team members.

Discussion 1/2

- the project had a positive impact in both major goals: participants' team development and cultural learning.
- participants became interested in this kind of knowledge (Zaramo dance, costume) and also acquired skills and attitudes (cooperation with in teamwork).
- In the rest of the duration of the program, participants continued to show their cooperative attitude

Discussion 2/2

- Participants got involved in team building stages of forming, storming, norming and performing in an efficient way. They got their role in the team, by following a self-directed and actively participated learning path.
- Through the participants' responses we can see that robot costume design and guidance was the most communicative and co-operational part of the project, while Zaramo dancing was the most self expressive part.

thank you