| le savoir vivant

# **BEAT THE QUAKE**

### Rules of an educational card game

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3rd International Workshop on Educational Seismology

1-3. May 2023 Pokhara, Nepal

# What is this game?

A card game to increase awareness and preparedness to earthquakes

# What is the goal?

- To protect the community from an impending earthquake collectively, and, if you have succeeded,
- To see who has more points individually

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## Why this title?

- BEAT: not to hit, but to win a battle, to be better in a contest, in a fight
- **QUAKE**: earthquake



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## **Technical details**

This game was created by:

- Gergely Szakács: concept (with input from Shiba and György), development, testing with players, fine tuning
- Levente Forgács: graphics, flyer





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## What is available?

- Nepali version: 300 packs, free of charge, all for you
- English version: 50 packs, for sale (income → project)
- · Game rules: in both languages
- Flyer, to advertise the game
- Box for the packs → rubber band, please construct a box
- HOMEWORK 1: take a pack with rules and rubber bands

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## Game principles – comparison

### **Bagh Chal**

board game, 5x5 field with lines

2 players: 4 tigers vs. 20 goats

play time: 10-60 minutes

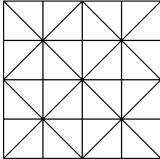
the rules are clear

steps are deterministic

players know the other player's options: open game

winning depends on good strategy and learning





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## Game principles – comparison

### **Bagh Chal**

board game, 5x5 field with lines

2 players: 4 tigers vs. 20 goats

play time: 10-60 minutes

the rules are clear



#### **Beat The Quake**

card game

2-5 players, 52 shared card

play time: 5-20 minutes

the rules are clear



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## Game principles - comparison

### **Bagh Chal**



- steps are deterministic
- players know the other player's options: open game
- winning depends on good strategy and learning

#### **Beat The Quake**



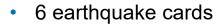
- steps are probabilistic, your next cards depend on luck
- some cards are not visible to other players: partly hidden game
- winning depends on strategy, cooperation, learning and luck

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### Cards



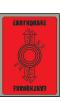






















and more...

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## Prevention Value and Earthquake Damage



**PV**: level of potential help, 1 = low, 5 = high



**ED**: level of potential damage, 1 = low, 5 = high









- · explanatory / educational text describing the item
- PV and ED are distributed for a good game, and resemble real life priorities

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### Rules

- (1) explained now, (2) explained this afternoon, (3) please read them
- this afternoon: play the game in 3 groups

#### STEP 1

- shuffle the cards, and set up the deck (see rules how)
- decide who starts the game

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### Rules keep all in hand ← not seen by others draw one STEP 2 card → hand put down 1 card in front of you: ← seen by others common cards

- Repeat a second time
- Proceed to next player in clockwise order

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### Rules

STEP 3: in case you draw an earthquake card!

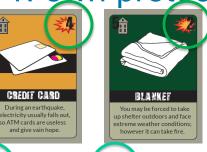
- Show it to all players
- Add up all **ED** value in your hand
- Try to beat the earthquake by:
- Protect yourself by collecting cards from your common cards with a total of **PV** ≥ total of **ED** in your **hand**
- Protect yourself with the help of other players' common cards
- 3) If this is still not enough to beat the quake, all players have lost 🖰

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Example 1: own protection is enough

Hand



Total ED = 6

Common



Total PV = 8, OK!

Unil | UNIL Université de Lausanne Example 2: further help is needed

Hand

Total ED = 4

Common



Total **PV** = 3, you need help

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### Rules

#### **END OF GAME**

- Play until the 6th earthquake card has been countered, then stop
- Count the points for each player
  - sum of remaining PV on cards in hand
  - 2x sum of PV in common cards that other players used to counter an earthquake
  - 1 for each card in common cards that has not been used
  - 3 for each earthquake you have protected the community from

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### Rules

- If there is a tie: see the rules
- For a bit more complexity: add some difficulty for orange and more difficulty for red earthquake cards (see the rules)



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# Summary

- BEAT THE QUAKE is a new, educational card game
- Goal: cooperation to improve earthquake preparedness
- Your and your students' feedback is welcome!



## **Questions and Notes**

I will test the game in group \_\_\_\_\_ this afternoon

HOMEWORK 2: play with your class!

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