

Grammar for Language Describing Game Structures

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Pretty-printed EBNF grammar:

```
 $\langle game \rangle ::= \langle round \rangle \{ ' , ' \langle round \rangle \} \text{ 'played by' } \langle player \rangle \{ ' , ' \langle player \rangle \}$   
 $\langle round \rangle ::= \langle phase \rangle \{ ' , ' \langle phase \rangle \}$   
 $\langle phase \rangle ::= \langle action \rangle \mid \langle progression \rangle$   
 $\langle action \rangle ::= \langle competition \rangle \mid \langle decision \rangle$   
 $\langle competition \rangle ::= [ \text{ 'scored' } \mid \text{ 'placed' } ] \text{ 'competition between' } \langle idList \rangle$   
 $\langle decision \rangle ::= \text{ 'vote by' } \langle idList \rangle \text{ 'between' } \langle idList \rangle \mid \text{ 'nomination of' } \langle number \rangle$   
 $\quad \text{ 'of' } \langle idList \rangle \text{ 'by' } \langle identifier \rangle$   
 $\langle progression \rangle ::= \text{ 'update' } \langle identifier \rangle \langle attribute \rangle \text{ 'to' } \langle value \rangle$   
 $\langle player \rangle ::= \langle name \rangle \langle name \rangle \langle number \rangle \{ \langle name \rangle \langle value \rangle \}$   
 $\langle idList \rangle ::= \langle identifier \rangle \{ \langle identifier \rangle \} [ \text{ 'except' } \langle idList \rangle ]$   
 $\langle identifier \rangle ::= \text{ 'everyone' } \mid \langle name \rangle \mid \langle name \rangle \mid \langle reference \rangle \mid \text{ 'chance' }$   
 $\langle reference \rangle ::= \text{ 'winner' } \mid \text{ 'voted' }$   
 $\langle value \rangle ::= \langle name \rangle \mid \langle number \rangle$   
 $\langle name \rangle ::= [ \text{ a-zA-Z } ] [ \text{ a-zA-Z0-9 } ]$   
 $\langle value \rangle ::= [ 0-9 ] +$ 
```

Notes:

- Allow for random decisions
- Vote tiebreakers?

- Players - mandatory attributes? just affiliation?
- Win condition or update affiliation to winner for someone in last round?
Have a progression shortcut for win?
- index challenge/votes/phases or name them with identifiers?