The Game of Ada

Setup: The game is for 2-10 players with experience in CS1120. To begin, players will need to print playing cards. Using this template:_____ players should create the following cards using cardstock paper:

- Draw 2 (3)
- Skip (3)
- Reverse (3)
- Debugging card—where you can play any card (wild card) (3)
- Expression (3)
- PrimitiveExpression (3)
- NameExpression (3)
- ApplicationExpression (3)
- ProcedureExpression (3)
- Empty (3)
- Number cards (2)
- True (2)
- False (2)
- PrimitiveProcedure (choose 2 of your favorite i.e. +) (3)
- Name (choose your favorite computer scientists i.e. “Ada”) (3)
- Expression MoreExpressions (3)
- Lambda (Parameters) Expression (3)
- Parameters (3)

Once the cards are printed, cut them out to create your deck. You are ready to play. Every player starts with seven cards, and they are dealt face down. The rest of the cards are placed in a pile face down. Next to the pile a space should be designated for a discard pile. The top card should be placed in the discard pile, and the game begins!

Game Play: The first player (normally the player with the least experience) views his/her cards and tries to match the card in the discard pile to make a surface form based off of Scheme Grammar. If the player has no matches they can either play an action card (Draw 2, Skip, Reverse) or must draw a card. Players may draw one card and then play it in the discard pile if applicable, or keep the card and pass to the next player. Once a surface form is completed, in next turn the player must start a new surface form. The game continues until a player has one card left. The moment a player has just one card they
must yell ADA. If they are caught by another player, the player must draw two new
cards. Once a player has no cards remaining the game is over and he/she wins!

**Cards:** "Reverse" - If going clockwise, switch to counterclockwise or vice versa.
"Skip" - When a player places this card, the next player has to skip their turn.
"Draw Two" - When a person places this card, the next player will have to pick up two
cards.
"Debugging" - This is essentially the equivalent to a wild card. A player can put down this
card when they can’t play anything to build on the current card in the discard pile. This
allows them to put down any other card of their choice, and the next player must then
play off of the new card.

**Acceptable moves:** If you want to check your surface forms, and make sure your card
moves match the Scheme Grammar, use the following chart: