BNF DA LINGUAGEM DE PROGRAMAÇÃO LINPON PRELIMINAR

```
 1  <program>              ::= <fbes> <inst> <rules>
 2
 3  <fbes>                 ::= <fbe>
 4                         |   <fbe> <fbes>
 5
 6  <fbe>                  ::= FBE <id> <fbe_body> END_FBE
 7                         |   FBE <fbe_body> END_FBE
 8
 9  <id>                   ::= ID
10                         |   ID POINT ID
11
12  <fbe_body>             ::= <decl_attributes> <decl_methods>
13
14  <decl_attributes>      ::= ATTRIBUTES <atributes> END_ATTRIBUTES
15
16  <atributes>            ::= <attributes_body>
17                         |   <attributes_body> <attributes>
18
19  <attributes_body>      ::= <type> <id> <value>
20
21  <type>                 ::= BOOLEAN
22                         |   INTEGER
23                         |   REAL
24                         |   STRING
25                         |   <id>
26
27  <value>                ::= NUMBER
28                         |   <boolean>
29                         |   <id>
30
31  <boolean>              ::= TRUE
32                         |   FALSE
33
34  <decl_methods>         ::= METHODS <methods> END_METHODS
35
36  <methods>              ::= <method_body>
37                         |   <method_body> <methods>
38
39  <method_body>          ::= METHOD <id> LP <id> ASSIGN <value> RP
40
41  <inst>                 ::= INST <declarations> END_INST
42
43  <declarations>         ::= <declaration>
44                         |   <declaration> <declarations>
45
46  <declaration>          ::= <type> <ids>
47
48  <ids>                  ::= <id>
49                         |   <id> COMMA <ids>
50
51  <rules>                ::= <rule>
52                         |   <rule> <rules>
53
54  <rule>                 ::= RULE <rule_body> END_RULE
55                         |   RULE <id> <rule_body> END_RULE
56
57  <rule_body>            ::= <decl_condition> <decl_action>
58
```

```
59  <decl_condition>         ::= CONDITION <condition_body> END_CONDITION
60                           |   CONDITION <id> <condition_body> END_CONDITION
61
62  <condition_body>         ::= <subcondition> <operator> <condition_body>
63                           |   <subcondition>
64
65  <operator>               ::= AND
66                           |   OR
67
68  <subcondition>           ::= SUBCONDITION <subcondition_body>
69                                   END_SUBCONDITION
70                           |   SUBCONDITION <id> <subcondition_body>
71                                   END_SUBCONDITION
72
73  <subcondition_body>      ::= <premise> AND <subcondition_body>
74                           |   <premise>
75
76  <premise>                ::= PREMISE <exp>
77                           |   PREMISE <id> <exp>
78
79  <exp>                    ::= <fator> <comp> <fator>
80
81  <fator>                  ::= <id>
82                           |   NUMBER
83                           |   boolean
84
85  <comp>                   ::= EQ
86                           |   NE
87                           |   LT
88                           |   GT
89                           |   LE
90                           |   GE
91
92  <decl_action>            ::= ACTION <action_body> END_ACTION
93                           |   ACTION <id> <action_body> END_ACTION
94
95  <action_body>            ::= <action_elements> <action_body>
96                           |   <action_elements>
97
98  <action_elements>        ::= <instigation>
99                           |   <method_use>
100                          |   <exp> SEMICOLON
101
102 <instigation>            ::= INSTIGATION <method_use>
103                          |   INSTIGATION <id> <method_use>
104
105 <method_use>             ::= <id> LP RP SEMICOLON
```

Código 1: BNF da linguagem de programação LingPON Preliminar
Fonte: Adaptado de Ronszcka *et al.*, 2013