

Search sheets: how to run the activity

The pages after this one are 36 **search sheets**, dealt from *The Cat in the Hat* by Dr Seuss. Print them one-sided and hand out **one sheet per person**; every sheet is different, and nothing needs cutting out. Each holds 54–55 **token pairs**: a **next token** with the **previous token** that came before it in the text.

Match the room to the sheets, not the other way round. More people than sheets: print the whole set again, once per extra roomful. Every count multiplies equally, so the proportions — which is all the model is — hold. Fewer: hand the spares out anyway, two or three to a person. A sheet nobody holds is a hole in the model.

In **in the**, the boxed token is the context and *the* is the next token. A token keeps its colour wherever it appears, so say the colour as you call one out — “who has *the*? it’s a purple one” — and the room can scan by colour before reading. With 8 colours and far more tokens, a colour narrows the search rather than settling it.

black grey red brown green blue purple magenta

Running a round

Seed the board: someone reads out any token pair from their sheet, boxed token first, and both go up — the room supplies the beginning too. Then, each round:

- 1. **Call out the last token** on the board.
- 2. **Hands up** from everyone holding a matching token pair — one hand each.
- 3. **Pick a raised hand at random** — whoever shouts first is the fastest reader, not a sample of the text — and ask for its next token.
- 4. The scribe writes that token up. It is part of the next context. Repeat.

What to watch for

The hands are the probability distribution. Every token pair sits with exactly one person, so a common continuation puts more hands in the air than a rare one. Nobody has to explain weighted sampling; the room performs it.

Nobody holds the model. No single sheet can continue the text on its own. One hand is not a stall — but no hands at all means an empty seat, so reseed from any token pair and say why.

1962 tokens, 240 unique · 2.83 bits/token · perplexity 7.1 · branching factor 4.32

Worked example

Start anywhere. Someone reads out a token pair — say this one — and both its tokens go on the board.

Round 1. Call out *the* — the last token on the board. A sheet across the room matches it, and that person reads out way.

Round 2. Call out *way* — the last token on the board. A sheet across the room matches it, and that person reads out *that*.

Keep going for as long as you like. What the room writes will sound like *The Cat in the Hat* without ever repeating it — that is the model generating, not the corpus being read out.

the token pair that answers

in the

the way

way that

on the board

in the

in the way

in the way that

in the	game that	fish !	said ,
things ,	Why do	what should	! so
kites on	tell me	like ,	did not
the cup	is not	can do	so ,
a lot	fly kites	find this	I will
the head	tip of	cat said	you some
fan !	us this	, so	! so
have to	do not	should not	! look
wet ,	had to	saw her	with Thing
and then	bump on	. no	I do
he has	we tell	that is	hat .
the dish	. these	then we	and I
to go	! then	not all	, the
will not	on the	. what	

find us did you Why, not mind
 ! and and so day. and I
 so, , wet said, hands with
 a pot , I ! said is not
 shame ! wet to kites, I call
 . and . have with the then I
 can have game that I do . that
 we do have Lots . not tip of
 to you the way will show saw them
 you do the ball mess, on a
 fish in like to he said fan as
 do as in the ! said that is
 the fish milk on him ! what would
 sad kind about it things will

then we him step mat ! fan ,
 put them . he what to house and
 ? Oh you can call up on the
 I said deep and wet day the milk
 ! and can hold to us . your
 and the have any ! Thump hop up
 with my things and ! Who , white
 said the saw him is a the fish
 the cup mess is , what a cake
 and Thing I know we had . .
 he put like it hands . milk and
 not all will not . your about with
 that are day . shame ! fish ,
 so tame bad tricks do something

what will him pick ! said is not
 the books . and fish ! we
 house . call them with a , I
 milk , said the want to toy ship
 so so put me shook their hands with
 you ? will see ! look fan with
 bad , day . wet , like these
 can hold ? Well shame ! mess !
 I will ! so on a he said
 we saw and Sally do ! about .
 not a that is then , . he
 the cat saw him to us and I
 things I . you hop on , I
 I will the cat deep in

! what things fall our fish get them
 gown with fish . then Sally . that
 wet and house ! lit . ! and
 the hat toy man not know to find
 want to day ? I can some good
 we did he fell on there that bump
 would you what to and so . do
 put them so all do ? I say
 ! now good fun will like saw one
 the hat Think of , said call this
 can hold said the here . like it
 with a the cake shook up , with
 you should ? Why and big are pink
 . two is not . Yes

. our fish ! and good ,
 on his house ! and we ! Thing
 do not shook with saw him get out
 what a the toy a ball can hold
 things they some fun are two there like
 fish in not sunny the cat he gave
 so . ? tell toy ship ! I
 . so will show . you From up
 and Sally to us would she , no
 I do , said put me I wish
 you hear like to said to yet !
 then Sally gown ! that . we looked
 the house kind of wet day ! bump
 here When with a at me

Sally . pick up that is ! and
 , and here When so we you sank
 their two things yet like it hops and
 are good good games not all . But
 what the , we said the get those
 then I fish as ! sit toy ship
 house ? our toy not be Lots of
 to shake the hall we saw . I
 ? and a cup he said some new
 . our on a and Thing ! he
 . then I like there with would you
 the hat at all gown , now you
 bit ! put them can hold I said
 and down will not the cat

has gone then those here is things in
 and Thing he came I will a cup
 Lots of there, we saw so big
 will she be in at this not all
 I will . and . I ! then
 can hold that is ! we they will
 their kites bit ! on the our mother
 said the not like ! you some milk
 are tame fish said pick up and this
 ? I like that good tricks what did
 now look you wish . , and
 the cat of her get rid the hat
 house ! to be , how bite you
 . . Sally and the cat

tail I that is good trick he was
 gave them things that like to dish !
 of the be here and the can get
 ! then and the PLOP ! now !
 what to on the not like , wet
 here to they will we had . we
 ? what at all ! said then ,
 not be house ! a bow are not
 our mother to get there that you up
 could see the cat the cake said the
 fish said pick it I can I will
 . I so . . my , too
 . what Sally and will hit For the
 bit . ! those the fish

, said he lit to fall into a
 hear ! ! the a pat , not
 ! and and the our fish fish .
 . and were down pick up dish ,
 things . I will not shine could ,
 Sally and there on the fan be here
 here . at me on my the cat
 they play ? should so we will have
 how do fast as now ! house !
 . But that were of this .
 cold to I do not . the rake
 said the pack up can fan ! Oh
 like this what you good game . he
 we saw then our you pack

we can a look fast as of this
 in the can get will show .
 be here kicks and not fly books !
 hear ? ! I on the there is
 and I , then things . I can
 could do our fish kinds of give you
 , out that I cold , .
 fish shook you sit ! I not in
 . what string of house all how that
 what will I hop the fish the hook
 ? Oh good things said , to do
 then he now ! here When he got
 . she at that Sally and like the
 the hat ! look they like

said to can hop . he be here
 , she things ran ? now could play
 in the man ! the dots what would
 house For not be how I on the
 at me will not he shut to know
 a rake then something ! so
 and all ! if Sally and I ,
 playthings and now , books ,
 like it up and of good the house
 mother's new ! they . and
 . we our house fish . .
 we saw net . cold , fast .
 , what you like that I lot of
 I can show you cat go the cat
 they like good fun

I call show to I can box ,
 like our one and the day our new
 a book , so ! said to the
 you another trick that can have wood box
 ! her now look net . in with
 ! put on the , we . I
 cat in lot ! fish in what a
 of something . and . then
 they are pat . two things . these
 good game things they said to not want
 we saw how . will give the ball
 strings , books ! at all be here
 and the then he fast as that day
 and Thing ? would up these the pot

, Why . this . and to say
 the fish then he trick , fast !
 out of we sat net , last !
 will not looked ! they should the house
 Thing one and so Oh , two books
 ! do I can fish said pot !
 tricks . one little the box cat in
 said the . Oh in the , the
 a tip our mother and kicks now ,
 at last ! and be about box are
 I do you have ! said that is
 up the , said show them not be
 what a play . things that little toy
 . it ? Oh of good

no fear . so I said show you
 up on box . you do we can
 . I pot . will come the hat
 then he the fish two things Oh ,
 that they out and little fish not one
 Thing two . a the things and a
 looked ! now . one and ! at
 , with said the of look in the
 , do and look net I funny !
 sat in , said they should cat in
 came down our fish at me ! those
 hall . ! put sun did a box
 fish came play ! tricks . to the
 . this I can ? and

of his Oh dear and red .
 our fish box with in the . have
 little bit ! how ! then two ,
 them go ! then not wish one and
 . they cat . said the play ,
 pot . , here tricks , no ,
 Thing two bow . and I hall .
 out ! take them will bump the ship
 we sat then our now look came in
 sun is you get they will , no
 up those look at fish . I can
 if your book on at this the cake
 the mat . I I let a bump
 , and to go sat there

, I not . . that our game
 look ! if you to do and the
 in the and you take a fall .
 When your of Thing , what will find
 we sat they want play ball ! said
 the wall the cat little bit two .
 now ! . with the sun at all
 this mess said , came down , the
 a lot them a no fear I do
 out ! ! have home ! I saw
 box . ! I Oh , one hand
 up up pot . . I sat there
 Thing one his hat cat in tricks are
 you will fish on . there

up high at me ! they cat .

When our in a the milk came down

, how of one hand ! the hook

and the . it . I box came

to do , look sat in no fun

you now we looked Oh , the cat

run down I call fish to play .

do not they ran look at asked you

one ! his hat I always said the

fear . them out , jumps . you

out of fall ! Thing one if I

not pick ! then little bit a big

pot . ! said bed ! two things

and a this mess

Thing one new tricks at this a little

came Thing this game Well . we tell

the cat , now out ! not know

. . When your said the cat .

, I and Thing his head , said

and I I had fall ! look at

no fear ! I fear ! ! now

. and . no little toy ! he

Make that one ! up . the cat

with Thing you do of the do ?

Oh , tame . to the thumps and

them out the wall shake hands in the

I can play . they have those things

if mother two things

cat . said , out of a tip
 ! put . in came back fame !
 those things ! and I bet went on
 cake ! I know Make them Oh ,
 another good it was they ran
 new . up all fear ! shake hands
 Thing one know how no fear , said
 the house and Thing fell on . I
 wall ! with a not be do .
 . they look at this way and they
 the hat ! and of my in the
 , and them I one little two and
 is what the cat was gone mind at
 you did say . we saw

! they , that sank it Oh ,
 my tricks cat with Thing two . I
 the things was out say . and you
 they should two ! the fish .
 the fish , said up all a fish
 with big is not fear , sit !
 said the of his I stand went away
 look ! bet . ! have ! sit
 I did new rake another good
 one little and the it , this house
 those things know what out . not know
 you . fell into we could do not
 them Thing wall in in the cake .
 said our . you no !

one kite no fear do not the things
 Oh, they said all the new gown
 I sat my tail . I look what
 them to the hat sank our not one
 . . fear of said the ! bump
 the pot come here , and and the
 is not , said ! it went bump
 was to her the two ? and our
 up the wish we with hops say .
 sit ! . and cake , know !
 I like cat , of good those two
 it deep bet , in the Thing two
 said the this trick ! not down on
 mother was a box

was too . your . should come .
 those two ! what sit ! say ?
 step in ! and is not up there
 cat . wish to and he I know
 the cat down the me ! them away
 bumps , one kite I went , sank
 a red two things do . as I
 cake on mother could look !
 with a said , , as ! your
 the cat fear . not let of bad
 this wet all . went after and so
 . they it a my playthings
 no ! her . said the Thing two
 know it Oh , they ran in the

the string the hat to have cat went
 and our ! then not ! and some
 said , in this those things it was
 a dish all kinds ! and them away
 sit there way that high as my hat
 her way mother is , and , no
 ! down Oh , you will do you
 is good fun to no ! as I
 I could was shut Who was gone with
 down with up our say ! one and
 me . ! said ! so hat .
 two . this box big red with a
 Thing one know some . now wish ,
 pink , look at

picked up , if to play , said
 mother is is near ! I as fast
 you take gone away no way up up
 ! look her about look at this is
 them run two . the fish and look
 fun in a sad I did ! and
 down my hat ! Oh , away .
 cup on know ! ! said ! Make
 the cat ship , Thing two me now
 said , my net was back these things
 wish to way ! it came all we
 and he . you nothing at in the
 cat ! sit ! not bad do I
 big and with a

mother ! ! fast a house all !
 , wet up ! tall , stand on
 fun on ! said hat you know what
 do you in and way home them !
 big bumps said . not bite no !
 two and cat . and the the cat
 I will dear . ! look ! Oh
 me ! her bed the house after my
 is wet my net these two cup and
 with a stop . ! with it is
 Oh dear this ! you hear , we
 But that and he away ! look !
 Yes . down ! to us ! But
 ship ! as a

. a it ! I like down the
 do not is fun dear ! fun at
 ! no away . and the ! have
 that cat way at my net a game
 , and . Oh hat . ball !
 her gown ship , said the But you
 look ! two hands up with big thumps
 you shook these things as I mother will
 to play all . have to . But
 not like the gown cat in me down
 know some ! we let you should we
 with a cup , the hall and the
 , no back in in the rake .
 this ? no .

this is should not a good fun ?
 it is , did have no ship and
 my net hat . ! and me down
 no ! down ! let down cat .
 ! said the cat big mess ! I
 know what look at all ! and I
 ! . away ! ! look you bent
 back in up the and then as you
 these books in a not one cup and
 hit ! I did But your . look
 said the is that mother asked
 do was the top top of , said
 rake , with the ball . to say
 ! . that they something went

in the ! and all ! ! then
 ball . ran up to stop a game
 my hat and I hat . , we
 ! and is not did not rake !
 kite bump this house you . she will
 top with look at that is down .
 . and up two fun But and we
 your mother me ! should not sunny .
 cat in with a as I no .
 said the the fish have no I can
 . then it to But I do you
 something to ! too go !
 . I not wish the cat any fun
 mother will away with , said

away . the sun go away . they
 something new should not do ?
 we and the , as hold up
 the things in the she do hat to
 kite we cat . ball . up the
 Thump ! have fun But that hook .
 ! I ! sit with the I saw
 got up it . mother came
 bump ! ran down a shame said the
 is so did nothing to play down ,
 . ! look ! I fun that
 look . not all your mother , with
 that I you do this , as he
 no ! me now all . and Sally

. take , Oh have no ! and
 bump made . now and a is on
 fun , in on to fly do !
 all the he should ! on with my
 should not that ! so , did you
 I know too . it ? as fast
 . she say cat in ! then
 ! put mother is your mother games we
 you do not . and she hook .
 look at a PLOP something to
 ran to Thump ! the cat always pick
 up the , and go away said the
 ball ! down with But our this house
 hat , the box hold you

and I , little not like ! no
 something ! said the it up you fall
 this big all . jump ! cat .
 ran about he picked hook . the things
 on top near ! to you with a
 ! Oh hold up should we she will
 ! you bump ! your mother . they
 did not go out that is mother is
 and a . it . But hat !
 we can shut with down ! so deep
 too wet head ! in the , and
 fun . ! and have Lots do not
 us two I said But that a little
 is out the cat

dots that things had hold a and with
 will hold us jump cat in to sit
 then we she say too cold head of
 game that on her your mother do to
 said the the ball ! they have no
 a shame ! tell bump From you have
 should we with Sally , and . he
 we shook red . hat . he should
 , cold is no . Oh . now
 I bet . he go ! ! But
 and then the pot in the jumps and
 that ? shut up But we did not
 not like mother is so so ran out
 all I ! with

will show should not your mother us ?
 tell her do ! I do to have
 bump ! on the with my you another
 then he the cat in the that cold
 game fun red wood ! Make , fast
 fox , But our and the cat in
 have fun not like had something
 a fox hold up said the , no
 rid of is no we two ! Oh
 too wet . you ! said see this
 . But he should so we ! Thump
 saw all the things things bump she said
 hat . . they all that did !
 the fish and , . you

not be white and the fan that cat
 your mother ! and cat . I know
 fish in and then then ! will pick
 so tall all if he fell ! they
 did not on this said the to shake
 tell her , Think the fish bent our
 red fan should not ! I can not
 us fast . Why . then and too
 hold up the cat made us . I
 a hook hat ! game . bump their
 you did had them do you have no
 . that saw those with fear we did
 things should see something
 is not in this ! Oh , I

so do have come on one . then
 , said the strings and I I can
 . Oh do if and the hold the
 cat in kites in he ran ! But
 bump ! we could should not us ,
 not go Why , all my tell that
 saw mother's things are ! not
 to play fly kites ! now game ,
 fish . , the did not that went
 can , . I then he said ,
 shine . with a the pot like it
 in the will she a shame the hat
 . then you will is funny your mother
 had to hat came wet to