Participants: IS5 (glasses), I1 (dark blue shirt)
Setting: Office hours; I1 helping IS5 prepare for her presentation/meeting with professor by reviewing numerous papers and articles

0:00
xxx IS5: ((incomprehensible))
xxx I1: is that a famous↑
xxx ((incomprehensible))°
xxx IS5: uh this is
xxx I1: physicist
xxx IS5: ((points to page))
xxx th- this is ((whispers name of physicist))
xxx I1: ((incomprehensible))
EXC IS5 uh:
EXC how to say
EXC uh:
xxx ((pause))
xxx do you know ((incomprehensible))
xxx no y-you don’t know.
xxx I1: no ((shakes head and laughs))
xxx IS5: it’s ok,
xxx I1: it’s just the terminology.
xxx I1: ok
xxx cool! (.2)
xxx IS5: a-and this is a- a simple example↑ of a) quantum
xxx mechanics (um)
EVC ((mumbles))°
xxx I1: mhm
xxx IS5: (he’s) try to talk about
xxx uh
xxx (how) to give you the example of this one
xxx like
xxx to ((incomprehensible)) you something:
xxx (quantum mechanics).
xxx I1: ok
xxx ((flips and points to page))
xxx so these are (. ) the preparation, and readouts?
xxx IS5: ((reads and mumbles to self))
xxx yes.
xxx yes.
xxx this is (((incomprehensible))
xxx I1: [(and those are the:
xxx bits=]
xxx IS5: =yea
xxx this is the (state)-
xxx the bits.
(and it says on the graph) two bits.

((whispers)) zero zero

((points to page)) zero? or one.

yea

(but in this two state)

the first is zero (then) zero

first is zero

but like then I (((incomprehensible)) two particles,

[oh:

>the first particle (((incomprehensible))

((incomprehensible)) second is in (.) one<

[cool

so yea

two bits

I see.

(too confusing)=

=one is really exceeds two

then when do you need a third digit (.1)

never?

if you misunderstand just add a zero or one

because it’s same in the quantum

(in th- in the classical base)

because it

like

(where) it is zero one [zero one

[cool

you never (show up to) if (there is two a two would be

one).

(you know)?

right?==

=yes

yea

see

((reads paper more)) optical photon

yea

this

this is a candidate (too)

((drops pen)) sorry

(can we do it to evaluate whether a-)

no ((incomprehensible)) (two of) the bits

((whispers)) photon°

((mumbles))

uh

we could use the polarization for ((incomprehensible))

[(mumbles)

[.hhh

((points to page)) something ↑cool here
what’s this?

((leans in and squints at page))

((mumbles))

((pause))

(you have) ↑laser and ↑crystal

yes.

↑hm:

and then this is the input

and this is the material to make the transformation

and this is the output [(trails off)]

I1:

[ok

what does the dot mean

((leans in)) dot?

((laughs))

I1:

I don’t know

maybe↑

it’s just a symbol

yea but

that is a [cool dot

what this wave

means then

ok look

the dot↑ I guess mean this is b minus

((pointing at the paper when she says “this”))

((the upper minus the:))

((leaning in)) yea

like

oh: ((points to page)) there’s something here.

this is ((incomprehensible))

(which means the complex continue)

is it?

yea.

((.3)) ((nodding))

fancy

mhm yea

[mysterious

[it’s fancy

3:00

((flips page and points))

oh again?

((laughs))

(with a pi)

((flips page))

oh↑ (cool).

I think- ((flipping pages))

another matrix!

yea actually↑

what does it mean?

ah yes matrix
ah!

um:
you can treat this as the mathematical representation of the (.) transformation.

mhm
((incomprehensible)) matrix

((points to page)) what does this symbol mean?
(a circle with a dot)

((inaudible; loud banging outside))
oh
((incomprehensible))
I guess physics (.) is special

[uh
it’s not for
like
(multi- multiplication) of two (a real) numbers
((incomprehensible))°
oh:
so it’s used only in matrix
yea you can think it is used for matrix°
cool
↑(drawbacks)↓
((inaudible speech))
they have a ↑lot to say about drawbacks.

uh
th-
uh
it’s-
I need to print all of them so
alright
mhms
ok

so you are done
talking about quantum to me today
((laughs))
((laughs))

(ah:)↑ quantum
((looks at wall, thinking))
((slight nod))

yea
it’s uh
modern physics

so after (.) your meet with your professor
you’re going to present this in class?

yea
ok.

thirty minutes?
oh!
((lifts paper)) just this
((nods))
(gonna talk about this)
((nods))
print out? or (.) powerpoint=
=powerpoint.
((looking through paper)) powerpoint
so you’re going to (.1) copy those (..) images=
yea
I think so
((nods))

^awesome
yea
if I can make sense clear
it’s awesome.
((smiles nervously))
it’s (really) awkward
how many students are in this [(.) seminar
[uh:
more than ten?
or [less than
[yea more than ten.
more than ten
is this a very interactive seminar?
[uh:
[do people talk?
uh
like
this is a ((incomprehensible)) we are-
we have to choose these courses=
=mhm ((nods))
but
you can choose it uh
in- in- in- an- in (.) any semester
mhm
of
uh
in (the first two years).
ok
so um
so ^every students has to talk
like
I- each week there are two students to talk about (.)
something
ok
everyone has thirty minutes to talk,
and two minutes maybe,
questions
((nods)) alright
what time is (this)
((looks at laptop screen))
↑two (. ) forty-three
((looks surprised)) two thirty-three?
((incomprehensible))
((gets up)) let me↑
um
check the video.