

May 2020

OfficeHours_IS31_20160428_Seg03.pdf

Follow this and additional works at: <https://commons.library.stonybrook.edu/language-adaptation-ethnography>

Recommended Citation

"OfficeHours_IS31_20160428_Seg03.pdf" (2020). *Ethnography Transcription*. 211.
<https://commons.library.stonybrook.edu/language-adaptation-ethnography/211>

This Office Hours is brought to you for free and open access by the A Longitudinal Study of Language Adaptation at Multiple Timescales in Native- and Non-Native Speakers at Academic Commons. It has been accepted for inclusion in Ethnography Transcription by an authorized administrator of Academic Commons. For more information, please contact mona.ramonetti@stonybrook.edu, hu.wang.2@stonybrook.edu.

Ethno Studies OfficeHours IS31 20160428 Seg03

Participants: IS31 (TA, black hooded jacket), S1 (male student, grey zip-up sweatshirt), S2 (female student, hat), S3 (male student, grey zip-up hoodie), S4 (male student, black hoodie), S5 (female student, Stony Brook hoodie), S6 (not visible, inaudible)

Setting: IS31 assisting students during office hours

0:00

xxx S1: so we just can (this)
xxx like ok check it out this
xxx oh and this is the x here
xxx IS31: ((leans in to look at paper))
xxx S1: so it's already x and x [(is the same)]
xxx IS31: [yea
xxx S1: so I need to- this one ((erases paper))
xxx so how do I then
xxx uh just square all of them?
xxx IS31: yes.
xxx S1: ok°
xxx IS31: uh: ((looks through text))
xxx let me fin-
xxx ↑I think you have (.)
xxx [for here they say chapter one.
xxx S1: [formula is (.) ((looks at packet)) here
xxx um (.3)
xxx this is the standard deviation like the same way,
xxx like (he)-
xxx IS31: oh this
xxx this one. ((shows S1 textbook))
xxx sample variance (.2)
xxx so: this x I just mean the (.) sample value it gets.
xxx S1: ((nods))
xxx IS31 and you use this ((incomprehensible))=
xxx S1: =yea uh,
xxx it's right here like ((shows IS31 packet))
xxx ((incomprehensible)) standard value
xxx but I was thinking,
xxx like ok.
xxx if I want to get that number ((incomprehensible))
xxx square all of them
xxx like
xxx all the numbers,=
xxx IS31: =yes
xxx S1: and (.1) ok
xxx I don't have to divide or anything right?
xxx IS31: (.1) ((looks at laptop screen)) uh ((nods))
xxx S1: like
xxx uh- uh I just square all of them and add them whatever

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx is there
xxx then I will get the [same, (.) and
xxx IS31: [>yea yea yea yea yea, just like
xxx this one
xxx S1: then I can use uh that formula.
xxx IS31: ((nods)) mm
xxx S1: ((points at packet and shows S1)) this one.
xxx IS31: ((nods)) mm
xxx S1: (ok)
xxx IS31: ((turns to S2))
xxx S2: um
xxx for this question? (.)
xxx **should ↑I put um (.3)**
xxx n (.) as 5?
xxx it's five°
xxx IS31: yea
xxx n is 5.
xxx and uh:
xxx uh: ((slides paper toward himself and points at page))
xxx oh no no
xxx uh:
xxx (f-for 5) just uh
xxx it's a ((incomprehensible)) like
xxx and the n should be: sixty.
xxx becau-=
xxx S2: =oh:
xxx IS31: uh:
xxx you know that for: (.1)
xxx mm: (.1)
xxx so every, (.)
xxx uh exam paper (.1) uh the mean is 5
xxx and the standard deviation 5
xxx S2: ((nods)) mhm↑
xxx IS31: so there are 60 students.
xxx S2: mhm
COM IS31: so the mean should be: 5 multiplied by 60? (.)
xxx S2: mm: ((looks at paper)) (.)
xxx you mean (.) mean?
COM IS31: uh:
COM yes
COM mean (.1)
COM uh:
COM because,
COM uh
COM so
COM the meaning (is) that (.) fo:r
COM I mean
COM for (.) each student
xxx S2: ((nods)) mhm

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx IS31: ((incomprehensible)) 5 minutes (.) to grade their
xxx S2: [mhm↑
xxx IS31: [exam,
xxx S2: [ah:
xxx IS31: [and there are 60 (.) students=
xxx S2: =students
xxx IS31: yea
xxx so the (expectation) (.) should be=
xxx S2: =300
xxx IS31: 300,
xxx [yea
xxx S2: [mhm
xxx and the-the standard deviation you can
xxx ((incomprehensible)).
xxx s-uh-
xxx S2: 5 min- 5 minutes?°
CLF IS31: uh::
CLF no
CLF uh:,
CLF the standard dev- (.) standard deviatio:n
CLF m:((opens textbook and flips through pages))
CLF uh((shows S2 page)) so if you want to calculate the
CLF standard deviation of the sum of some variables
CLF (the square root of m,))
CLF (divided by the: original standard deviation).
CLF so it should be (.) 5 multiplied by the square root of
CLF (.) 60.
3:00
xxx S2: (.)wait° s:ic-
xxx n is 60?
xxx IS31: yea
xxx n is 60.
xxx S2: and n: is° (.)((looks at IS31's textbook))
xxx IS31: ((slides textbook a little closer to S2))
xxx S2: oh
xxx 3,
xxx right?
xxx oh no 5.
xxx IS31: ((leans in closer to S2's worksheet))
xxx ((picks up worksheet and reads it closer)
xxx S2: or is it 3? or (.)
xxx 3?
xxx IS31: (.) [uh:-
xxx S2: [you mean the standard deviation
xxx right?=
xxx IS31: =yea
xxx S2: (.) so it's 5.
xxx IS31: ((nods)) yea is 5
xxx 5 multiple by the ((looks up to think)) (.) square

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx [root of sixty yea°
xxx S2: [(root) of 60
xxx IS31: you can calculate it, (.)
xxx by calculator.
xxx just uh=
xxx S2: =can I write this?
xxx like
xxx five sixty?
xxx IS31: ((leans in closer to read S2's work))
xxx uh::
xxx but later on you will need to calculate the
xxx probability
xxx so (.) you (.) need to divide the standard deviation to:
xxx (.) give you (3) ((looks at S2))
xxx uh[:
xxx S2: [what's-
xxx what's the (values)?
xxx IS31: uh=
xxx S2: =(to calculate)?
xxx IS31: ((looks at screen))
xxx ((pause))
xxx ((laughs)) he didn't (.) write it
xxx so: you can just use calculator to calculate this
xxx number. (.2)
xxx it's about 2 point (.) 3 2
xxx S2: you mean ((points at worksheet as IS31 looks down))
xxx this (.) number is
xxx two point=
xxx IS31: =uh:
xxx uh no
xxx this number is the square root of (.) one thousand
xxx and (.1) fif-five hundred↑
xxx ((takes out calculator))
xxx it's about (.) thirty-eight. (.) point (.) seven
xxx S2: ((writing)) 38.7
xxx IS31: yea
xxx S2: three? Can I say three? seven three?
xxx IS31: no-
xxx S2: no?
xxx IS31: yea↑
xxx either is ok
xxx ok
xxx S2: 7- or 7 to 9
xxx IS31: mm: (.)
xxx huh?
xxx S2: [like what-
xxx IS31: [yea- yea- yea- yea- yea.
xxx S2: what- like [which decimal
xxx IS31: [uh:

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx there- there- there's no: (.) such
xxx uh:
xxx distribution uh (the digits) yea
xxx ↑you already- you will (.) just need two digits
xxx that's enough
xxx S2: seven:, (.)
xxx IS31: seven,
xxx S2: three=
xxx IS31: =three yea
xxx ((pause))
xxx S2: ((writing))
xxx then, (.)
xxx ((clears throat))
xxx IS31: ↑then you know: the: (.) mean and the standard
xxx deviation
xxx S2: [and this is the
xxx IS31: [so you have (.) just uh (.)
xxx do like uh (1.)
xxx [((incomprehensible))
xxx S2: [wait
xxx 5 minus 300?=
xxx IS31: =uh
xxx no ((points at S2's worksheet))
xxx this 5 is (.) hours
xxx and this is [minutes
xxx S2: [minutes?
xxx SI31: so 5 hours just means (.)
xxx [uh
xxx S2: [300
xxx IS31: 300 (.) minutes
xxx yea
xxx so 300 (.) minus 300 divided by=
xxx S2: then it's zero
xxx IS31: ((nods)) yea
xxx so:
xxx uh:
xxx part a is easy to calculate.
xxx maybe part b is more (.)
xxx S2: hm:
xxx IS31: uh complicated°
xxx S2: it's like 6 hours and 30,
xxx when-
xxx when you transfer to minutes?
xxx IS31: ((looks up and thinks))
xxx ((nods)) yes
xxx it's (.)
xxx S2: ((clears throat))[330-
xxx IS31: [three hundred ninety.
xxx wait

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx 390?
xxx IS31: ((nods)) uh-huh
xxx yes.
xxx S2: it's the same (thing) right,
xxx 390 minutes
xxx [300
xxx IS31: [300
xxx and divide by the=
xxx S2: =38
xxx IS31: ((nods))uh-huh
xxx S2: (point seven)=
xxx IS31: =yes ((nods))
6:00
xxx S2: ((clears throat)) ((leans down closer to worksheet))
xxx ((pause))
xxx IS31: ((turns to see another student walk in))
xxx ((picks backpack off of chair to make room for
xxx student))
xxx S2: ((points at laptop screen))
xxx can you use y?
xxx or (.) x
xxx IS31: mm yea yea
xxx that-that doesn't [matter
xxx S2: [either is fine?
xxx IS31: yea
xxx doesn't matter° (.2)
TRP uh ((leans down to read S2's work))
TRP did you,
TRP the:
TRP oh
TRP it doesn't use any- yea
TRP this one is (.) made by
xxx S2: then- you know what,
xxx ((points to screen))
xxx what's the difference- like
xxx this is more bigger,
xxx and this is more ((incomprehensible))
xxx what does make difference?
COM IS31: uh:
COM what's your (.) problem? °
xxx S2: cause, (.) yea° ((points at screen))
xxx IS31: th-this is-
xxx S2: the-the
xxx [(this one)
xxx IS31: [this (line)
xxx S2: ((chuckles)) this one?
xxx IS31: oh oh oh
xxx ok
xxx so,

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx (it-b-because) (.) ((leans in and points at
xxx worksheet))
xxx part a say that (.) can't finish (.) in (.) 5 hours
xxx S2: oh
xxx [so it should be less than (.)
xxx IS31: [so it means]
xxx less than five hours=
xxx S2: =in five hours
xxx IS31: and uh this (probably in that) (.) ((reads worksheet))
xxx mm cannot finish (.)
xxx [in
xxx S2: [mm:
xxx IS31: so
xxx S2: [((incomprehensible)) take more
xxx IS31: [the top is greater than
xxx S2: oh:
xxx ok
xxx ((pause))
xxx S3: ((off-camera)) can I ask you about (6.17)?
xxx IS31: ((flips through textbook)) six, (.) point°
xxx ((pause))
xxx uh: (.)
xxx ok
xxx so: ((looks at laptop screen))
xxx ((looks back down at textbook))
xxx so you, ((passes textbook to S3))
xxx need to do this one,
xxx the s square is uh (.) sample variance.
xxx S3: uh uh:
xxx IS31: ((raises eyebrows expectantly))
xxx S3: the s square is the sample variance?°
xxx IS31: yea
xxx because,
xxx uh ((flips page)) (.2)
xxx in this (program) it's ask you to calculate the probability
xxx that (.1) the sample variance is greater than (.) this
xxx right?
xxx S3: ((nods))
xxx but it doesn't get the standard deviation.
xxx IS31: hm?
xxx S3: it doesn't give the standard deviation.
xxx IS31: ((leans down and looks at page)) uh:,
xxx it say that ((incomprehensible)).
xxx S3: oh
xxx so you just square root it.
xxx IS31: no no you- no ((laughs))
xxx uh
xxx this (four) is a (sigma square)
xxx so this (sigma square) is a variance of the population.

xxx S3: (.1) how come the variance would- (.)
xxx oh: ok
xxx IS31: ok
xxx so,
xxx uh:
xxx you- you want to find the probability that
xxx S3: oh
xxx IS31: =s square is greater than something
xxx right?
xxx S3: ((nods))
xxx IS31: and you can multiply it by minus one:,
xxx divided by sigma square?
xxx S3: yea
xxx and transfer it into that- this (.) chi square[↑]
xxx ((incomprehensible))[°]
xxx ((looks at S3 expectantly; S3 looks blankly at text))
xxx because (.) they are equal to each other.
xxx for example if, ((leans down at text))
xxx s square is greater than 1 just mean this chi square
xxx is greater than (.) minus 1 divided by (.1) sigma
xxx square.
9:05
xxx S3: (.) so
xxx even the vari-the: ((looks down at book)) four is from
xxx IS31: mhm
xxx I-I think text- ((flips page))
xxx ((incomprehensible))
xxx S3: ((nods)) ok
xxx IS31: so: (.)
xxx mm (.)
xxx and for this chi square you can find the probability
xxx (.) in the chi square table.=
xxx S3: =oh ((nods))
xxx IS31: uh
xxx S3: yea
xxx IS31: (am I understand?)
xxx S3: yea
xxx IS31: ((incnomprensible))
xxx ((retrieves textbook from other side of table))
xxx S4: ((waits a moment before asking IS31))
xxx I have a question
xxx IS31: ((turns head toward S4)) uh-huh=
xxx S4: =last time I came here
xxx I ask you (about) (.) getting uh (.)
xxx ((points at workbook)) 6.3c?
xxx IS31: ((returns to textbook to find problem)) six-
xxx S4: ((points at IS31's book)) that one,
xxx IS31: oh=
xxx S4: =you said I have to use the binomial (.)

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx IS31: yes
xxx S4: uh distribution,
xxx but I couldn't figure out how to make um
xxx how to solve it=
xxx IS31: ((raises eyebrows)) how to solve it
xxx S4: how to
xxx make um
xxx ((glides pen across page in workbook)) make like this
xxx IS31: ((picks up workbook))
xxx S4: so I got-I got the varia[bles,-
xxx IS31: [have you- have you:,
xxx calculate the probability? (.1)
xxx have you calculated this one?
xxx S4: oh I have to (get this first one?)
xxx IS31: yes
xxx this serves as a- (.)
xxx because (.) in binomial
xxx there are two (.) (parameters)
xxx S4: right ((nods))
xxx IS31: first is n [(.) second is p
xxx S4: [right
xxx IS31: this is the p ((points)) (.1)
xxx so you need to know that=
xxx S4: =so I have to- I have to (calculate everything)
xxx even if (.) it doesn't matter?
xxx like-
xxx IS31: uh:
xxx uh i-i-it does matter ((smiling))
xxx uh
xxx y-you just-you first need to calculate this
xxx (probability)
xxx S4: ((nods)) ok
xxx IS31: and then use this as a p in (.) the ((inaudible)).
xxx S4: ((nods)) ok
xxx IS31: then you can calculate the probability (as y equal to)
xxx ((incomprehensible))
xxx S4: ((nods and takes back workbook)) oh
xxx I see.
xxx ((no dialogue until 11:11))
xxx S2: for this one, ((points at problem)) (.2)
xxx for a?
xxx ((pause))
xxx IS31: ((opens to same problem in his book))
xxx ((reads over problem and returns attention to S2))
xxx ok so (.2)
xxx uh: (.2)
xxx so in this case
xxx uh
xxx it doesn't say the prob- distribution of the (.)

xxx population (.3)
xxx ((looks back at his book))
xxx right?
xxx y-you just-
xxx you-you o-you only know the mean and the (.) standard
xxx deviation,
xxx you don't know the: (.) exact (distribution)
12:00
xxx but as this is a life sample
xxx so you can use a (.) ((incomprehensible)) (.3)
xxx ((looking at S2 to answer))
xxx uh:
xxx S2: ((picks up page and points at a problem))
xxx this one?
xxx IS31: yea
xxx so:
xxx if you know- if you d- though you don't know the
xxx distribution ((incomprehensible)) S1, S2
xxx but you kn[ow-
xxx S2: [what is S1 S2?
xxx IS31: hm?
xxx S2: (when you mean S1 S2)=
xxx IS31: =hm
xxx this just means uh (.2) uh
xxx ((incomprehensible)) rate of registered (.) nurses.
xxx ((looks up to see if S2 understands))
xxx ((pause))
XXX **SO:↑**
xxx mm
xxx it means
xxx uh
xxx this S1 S2
xxx they are (.) uh random variable,
xxx S2: [mhm
xxx IS31: [and uh th-they are- they have the same distribution,
xxx S2: ((nods))
xxx IS31: but we don't know their exact distribution
xxx S2: ((nods)) uh-huh
xxx IS31: uh
xxx but th-th-the exact distribution doesn't matter so
xxx long as we know their mean and their ↑(variance)=
xxx S2: =mhm ((nods))
xxx IS31: then (.) if it's a large sample
xxx like
xxx greater or equal to (.) 30,
xxx then we know that their (.)
xxx uh (.)
xxx mean
xxx sample mean (.) is (.) approximate

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx uh
xxx normal distribution.
xxx S2: ((nods)) mhm
xxx IS31: so
xxx in part a the sample size is 100
xxx so we can th-think-
xxx we can view the sample mean as uh (.) normal
xxx distribution.
xxx S2: ok=
xxx IS31: =and our task is to calculate the↓ mean↑ and the
xxx variance.
xxx S2: so ((pause))
xxx ((writing)) (mean is hundred°)
xxx right?
xxx IS31: uh:
xxx no↓
xxx the mean is the (.) same as (.) the original (point°)
xxx S2: ((leans in to read question))
xxx oh
xxx 31?
xxx IS31: yea
xxx so
xxx th-this-,
xxx this just mean that (.) the mean is
xxx ((incomprehensible))
xxx and the standard deviation is- or
xxx (renew) standard deviation divided by (.)
xxx ((draws out with finger))
xxx square root of n.
xxx S2: ok then°
xxx hm=
xxx IS31: =hm
xxx ((opens textbook)) it's the same as the (.)
xxx ((shows S2 page))
xxx ((incomprehensible)) (.)
xxx the- (.)
xxx the mean of (.) the sample mean is (.) the same (.)
xxx with the ((incomprehensible))
xxx standard deviation of the sample mean
xxx ((incomprehensible))
xxx S2: then (.) n is 100
xxx right?=
xxx IS31: =yea
xxx n is 100. ((nods))
xxx S2: an:d
xxx the standard deviation is five- five,
xxx right?
xxx IS31: ((leans in to see S2's work)) mm:
xxx S2: (because°)

xxx IS31: ((affirmatively)) mm
xxx S2: m↑^o
xxx ((writing)) ((pause))
xxx so (.3)
xxx next part, (.) ((incomprehensible))
xxx IS31: ((looks down at S2's paper)) ((pause))
xxx mm:,
xxx so in part a,
xxx you have just got (answer),
xxx because you know it's (.)
xxx normal distribution,
xxx and you know its mean (.) and variance
xxx so (.) the distribution is determined. (.2)
xxx uh:
xxx ((slides S2's work closer to him and examines))
15:00
xxx yea in part a, (.1)
xxx you have got (.) the mean of (.) this (x bar)
xxx S2: ((nods)) [mhm
xxx IS31: [and the var-
xxx uh standard deviation of this (x bar)
xxx S2: mhm
xxx IS31: and you know i's
xxx uh (.)
xxx normal distribution.
xxx S2: mhm
xxx IS31: so you (.) just (.) get (.) its distribution is just
xxx (.) [write it in this way]
xxx S2: [((nods)) oh:
xxx IS31: in part a,
xxx it just ask abo[ut-
xxx S2: [oh ok
xxx IS31: distribution^o
xxx ((15:25-15:35 no dialogue))
15:36
xxx S2: and in part b, uh- (.)
xxx it says (.2) it should be:
xxx ((pause))
xxx IS31: ((reads question, mumbling))
xxx S2: exceeds 31.5?
xxx IS31: ((nods)) yes
xxx becau- in part a you have again the distribution
xxx and your part b you just calculate (.) the probability
xxx that (.) this random variable is greater than (.)
xxx S2: ((pointing at page)) this same thing
xxx like
xxx what we did==
xxx IS31: =yes
xxx minus the mean and uh

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx divided by the (.) standard deviation.
xxx S2: ((pause))
xxx ((inaudible))
xxx IS31: (mhm)
xxx ((takes S2's paper and reads it over))
xxx ((nods)) mhm
xxx ((hands back))
xxx S1: ((out of frame)) I have a question
xxx IS31: ((turns attention towards S1))
xxx S1: when (.) I get the um
xxx my (clt↓) right,
xxx (the all natural) um↓ (.)
xxx binomial distribution here,
xxx so (.) when I get the result here
xxx do I need to do this (.) again then square it?
xxx IS31: let me see
xxx ((mumbles while reading over question))
xxx ((no dialogue until 16:57))
xxx S1: ((points at page)) cause this is my standard deviation now
xxx right?
xxx IS31: uh: (.)
xxx this is the:
xxx ((incomprehensible))
xxx S1: this is
xxx yea
xxx this is not variance
xxx variance ((incomprehensible))
xxx square is a variance like right there?
xxx this is the variance.
xxx IS31: ((looks over problem)) ((pause))
xxx wh- ((points at notes))
xxx S1: the standard deviation.
xxx IS31: wh-why is the (standard deviant,) because,
xxx uh
xxx it's says that uh (.)
xxx the (.) population standard deviation is 4
xxx S1: ((nods))
xxx IS31: and uh
xxx h-h-how do (.) make uh four (.) square?
xxx IS31: ((looks away from S1's work and at laptop screen))
xxx S1: ((thinking)) ((pause))
xxx hm↑
xxx yea you're right. (.)
xxx you're right. (.)
xxx ok
xxx standard deviation is for-
xxx oh
xxx I was-

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx ((taps IS31 to get his attention))
xxx IS31: ((looks at S1's work))
xxx S1: converting this
xxx IS31: ah:
xxx S1: ((laughs))
xxx so it's like
xxx ok ((incomprehensible))
xxx so standard deviation is 4
xxx [right?
xxx IS31: [mm mm mm
18:00
xxx S1: so if I get- what about this one then=
xxx IS31: =this is a-
xxx S1: I have to
xxx uh
xxx square it this one too?
xxx again?
xxx IS31: uh no
xxx this is a variance (.)
xxx because (.) you take the original variance
xxx divide it by n
xxx so it's the-
xxx ((tilts laptop over so S1 can see))
xxx [uh:
xxx S1: [and:
xxx go to 15? (.)
xxx I'll show you°
xxx S4: ((looks up at IS31's laptop screen as well))
xxx S1: ((pause))
xxx ((points at screen)) how come-,
xxx ok (.)
xxx IS31: uh:-
xxx S1: how come they have 0.5
xxx if it's 0.25 and 0.5°=
xxx IS31: =because this zero (.) point two five is the variance
xxx right?
xxx S1: mhm=
xxx IS31: =now you need the: standard deviation. (.1)
xxx because you (.) need- always divide the standard
xxx deviation,
xxx ((not the variance))
xxx S1: (.) oh:-
xxx IS31: [so you need to take square root-square root
xxx S1: [so (.) this is the variance
xxx ok
xxx IS31: ok
xxx S1: so
xxx thi-uh
xxx this we can take it- ok

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx the variance of (.)
xxx IS31: uh yea
xxx same square is [1.5
xxx S1: [0.25,
xxx IS31: so sigma is (.) point 2=
xxx S1: =so sigma is going to be (.) zero point ((inaudible))
xxx IS31: yes
xxx S1: ok
xxx IS31: and you should divide 0.5.
xxx ((focuses back onto laptop screen))
xxx ((no dialogue 19:01-19:16))
19:17
xxx S2: ((off-camera)) how do you
xxx um
xxx (simplify?)
xxx IS31: ((lifts and reads textbook, mumbling to himself))
xxx eight?
xxx S2: yea.
xxx IS31: uh: (.2)
xxx the: expec(.)ted value of sample mean is uh same as
xxx the expected value of (.2) the (.) population^o (.1)
xxx uh:
xxx S2: ((shuffles papers around and points))
xxx you mean this
xxx one?
xxx IS31: yea
xxx it just means (.) that this μ is uh (.)
xxx expected value of the population
xxx S2: mm
xxx IS31: and uh:
xxx if you know this (and the) expected value of sample
xxx mean is the same as that
xxx S2: mm
xxx IS31: so:
xxx you should first calculate the (.) ex(.)pectation of
xxx (.) the original distribution^o
xxx S2: so ((slides paper over to IS31))
xxx if it's like one over f-
xxx each one is [one over-
xxx IS31: ((nods)) [yea
xxx each ((incomprehensible))
xxx yes
xxx ((pause))
xxx IS31: so the (.) [expected value is-
xxx S2: [so: i-if-
xxx if you do 200 times ((inaudible))-
xxx IS31: uh:
xxx no
xxx no

xxx uh: you don't↑ (.)
xxx need to mind the (.) times,
xxx because that's: something about the sample,
xxx S2: ((nods)) mhm=
xxx IS31: =((incomprehensible)) only consider the: population,
xxx S2: ((nods)) mhm
xxx IS31: so population is that
xxx it's (.) either can be one two three four (.)
xxx with each (.) probability is (.)
xxx S2: [one over four,
xxx IS31: [one over four
xxx yea=
xxx S2: =oh:
xxx so the: expected value is (.)
xxx ((incomprehensible)) one over four plus two (.)
xxx multiple by (.) one over four plus (.)
xxx [three°=
xxx S2: [you mean (.) one over four ((inaudible))
21:00
xxx IS31: times- uh times one plus two plus three plus four°
xxx S2: what do y-what do you mean↑ one plus two plus-
xxx IS31: uh: (.)
xxx ((flips through pages in textbook))
xxx ((incomprehensible))
xxx m:
xxx ((pause))
xxx so
xxx uh
xxx that's↑ (.) a problem about (.3)
xxx ((shows S2 text)) that's a problem about (.) the: (.)
xxx expected value of a dis(.)creet distribution
xxx S2: ((nods)) mhm
xxx IS31: so
xxx the expected value is just (.) and this way
xxx each fx is (.) one over four.
xxx S2: mhm
xxx IS31: and x can be one two three four
xxx [so you-
xxx S2: [oh you mean
xxx ((mumbles as she writes))
xxx IS31: ah ah ah yes yes
xxx S2: ((mumbles))°
xxx IS31: ((nods)) yes
xxx S2: ((continues writing and mumbling to herself))
22:04
xxx and two point (.2) five=
xxx IS31: ((nods)) mhm
xxx ((pause))
xxx S2: what about, (.) the standard deviation?

Ethno Studies OfficeHours IS31 20160428 Seg03

xxx IS31: mm
xxx s-so first you need to calculate the (.1) standard
xxx deviation of the (.)
xxx S2: oh:
xxx IS31: original (.) population↑
xxx and then (.) just use that to divide it by-
xxx S2: uh
xxx [(incomprehensible)]?
xxx IS31: [square root of n
xxx ((looks down at S2's work))
xxx ah yes ((nods))
xxx yes
xxx yea becau- y-
xxx uh
xxx in the previous (.) p-problems
xxx y-you know the (.) mean and uh standard deviation of
xxx the population,
xxx S2: mhm
xxx IS31: but in this case
xxx you need to ((inaudible))
xxx S2: what was the formula again?
xxx to-
xxx to-
xxx IS31: uh: ((looks in textbook))
xxx you can use (.) ((points at page)) this (.)
xxx this
xxx the:
xxx S2: oh
xxx IS31: x square multiple by the fx
xxx uh divided by the mean, (.) square.
xxx S2: ((incomprehensible))
xxx IS31: yea
xxx [minus the x
xxx S2: [minus the x^o(square)
xxx ok
xxx ((no dialogue until 23:18))
xxx S3: for six point ((incomprehensible))
xxx IS31: huh?
xxx S3: part b.
xxx IS31: ((looks through text))
xxx ((incomprehensible))
xxx S3: (fifteen)
xxx IS31: fif-,
xxx ((23:29-23:31 incomprehensible))
xxx S3: yea
xxx I don't know why,
xxx but did-
xxx but the way I did it, (.2)
xxx it (turns out to) sixteen.

xxx S1: ((incomprehensible))
xxx IS31: (why are you laughing)
xxx S1: ((laughing))
xxx I have no idea
xxx ((incomprehensible/no dialog 23:43-24:22))
24:22
xxx IS31: uh:
xxx this, (.) this seem-,
xxx this seem like it's (.) two
xxx not four
xxx because four is the variance.
xxx S3: ((look through workbook)) it is?
xxx IS31: (.) eh? ((realization))
xxx oh
xxx no no no ((re-reads problem))
xxx uh
xxx ((pause))
xxx oh
xxx uh:
xxx it's because y-you are using the: standard deviation
xxx of the population
xxx you need to use the standard deviation of the sample-
xxx S3: how would you (convert) it
CLF IS31: uh just uh divide it by square root of n.
CLF ((looks expectantly at S3))
xxx S3: ((blank stare))
xxx oh (.)
xxx ok=
xxx IS31: =yea
xxx so it should be (.) four divided by ((looks up then
xxx back at S3)) square root of 64.
xxx S3: ((nods)) oh
xxx IS31: and it's point (.) ((looks up then at S3)) five.
xxx S3: ((nods)) ok
xxx IS31: and then you (.) get the (k).
xxx S3: ((nods)) ok
xxx (thank you)
xxx S4: ((inaudible))
xxx ((looks like he's been trying to get IS31's attention
xxx for a while))
xxx 6.12c?
xxx ((inc[omprehensible])
xxx IS31: [ah ((looks at text))
Xxx uh:
xxx yes,
xxx uh (is the exact distribution is a binomial)
xxx but
xxx ((25:29-26:11 IS31's audio superseded by S1;
xxx incomprehensible))

xxx yea you calculate the: (.) uh np as the mean
xxx and uh ((incomprehensible))=
xxx S4: =np as mean?
xxx IS31: yes
xxx and uh
xxx this as (.1) standard deviation. ((quickly looks behind
xxx him))
xxx are you student?
xxx S5: ((off-camera)) yea↑
xxx IS31: ((nods)) oh
xxx S6: ((inaudible))
xxx IS31: ((looks at laptop screen and then back))
xxx until 11.
xxx S5: the TA come in at 11:30
xxx IS31: oh
xxx there is another TA at (.) 11:30
xxx S5: (.1) same class?
xxx IS31: ((nods)) uh yea.
xxx ((pause))
26:56
xxx S2: now I have question
xxx this n,
xxx IS31: ((leans down to read problem))
xxx S2: (it means)
xxx ((incomprehensible))
TTF IS31: uh yea
TTF you want to-
TTF s-so it's just
TTF uh (.)
xxx S2: same as just ((incomprehensible))?
xxx IS31: yes
xxx ((looks at laptop screen)) ((pause))
xxx square root of (.) one point (.) two five?
xxx ((looks back at S2's work))
xxx S2: oh:
xxx I didn't do that.
xxx IS31: ((reads closer))
xxx oh
xxx S2: ((looks up at screen)) ((inaudible))
xxx IS31: one one one eight
xxx S2: (one one eight) ((writing))
xxx then in this case,
xxx ((incomprehensible))?
xxx IS31: mm (.2)
xxx oh
xxx so it's (.) (just in this way)=
xxx S2: =what about↑ (.) ((inaudible))=
xxx IS31: =sample mean is uh (.) x (.) bar
xxx ((opens textbook))

xxx it's (.) this one
xxx th-this represent the sample mean
xxx x (.)
xxx how to pronounce
xxx x (.) bar-
xxx S2: ((points at page)) ((incomprehensible))
xxx IS31: this is uh: (.)
xxx oh↑
xxx uh
xxx this (mu) is uh mean of: (.) the original population,
xxx it will not change
xxx it will- in this case
xxx it will always be (.) 2.5
xxx S2: ((nods))
xxx IS31: but
xxx as (.) each time you will take different sample
xxx S2: ((nods))
xxx IS31: right?
xxx you may just take (.) one two three,
xxx or two three four,
xxx or something
xxx S2: ((nods))
xxx IS31: so this (.) is the sample mean that is the mean of the
xxx sample you take
xxx so it will (.) uh be different (in) (.) different
xxx times.
xxx S2: ((looks back down at problem and then back up))
xxx IS31: so this the random variable
xxx but this is a fixed number.