

ITA Transcripts

Title: Chemistry Lab - Giving Advice
Focus: Giving Advice
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Context: This segment is from the same lab as Chemistry Lab-Communicative Competence. The Chinese TA is teaching a lab in General Chemistry, a course for non-majors. In the lab, the students were using titration to test the concentration of various solutions. This chemistry lab was videotaped in November 1996. The TA had good rapport with his students and handled the lab interaction fairly effectively, despite some limitations in language. In this segment of the lab, one can see the TA giving several kinds of advice to his students.

T: [hums]
S8: I got all kinds of papers for ya
T: Yeah
S8: all right I'll go staple'em and I'll give'em to ya
T: [hands S8 a paper] This yours, your return two, just two right?[student looks at his paper] [2 sec] okay? Ah in this one=
S8: I probably didn't do any of those right
T: in this one we have ah [2 sec] ah how do I say a . unified rule to to drop points if you miss miss this wrong I will I will drop two points off of this /one/
S8: /yeah/ okay all right
T: Since since we have eight ah seventeen lots of points will be drop off=
S8: uh huh
[TA moves to another student]
T: What is this? Water? or=
S9: =NaOH
T: Okay
33 min
[TA watches student]
T: No
S8: No?
T: if you put this on, the sodium hydroxide won't comes down [reaches into drawer] ah take a beaker, [puts beaker on lab bench] this one okay is okay, you have to skip the air bubbles, right? just make sure there is no air
S8: okay=
T:=okay and read this reading for initial buret
S8: it's about one twenty
T: I suggest you lower lower it down make uh this level . same height with your eye okay?
S9: Chen?
T: yeah
S9: here I don't have [unintelligible]
T: what?
S9: here we don't have base in this bottle

34 min

T: okay you can take a beaker or something to take the [TA taps large plastic vat on table]they are both the same use this one okay?

S9: we couldn't get any out of it, it's empty, it's dry

S10: [taps vat] it is not empty

T: [fiddles with tube] its work

S9: well well then maybe I had a maybe I had a kink

T: [laughs] maybe

[S9 tries to put tube in vat]

S10: get a beaker

T: take a beaker to do that okay?

S10:it looks easier, [watches student still trying to lift tube into vat] what the heck

T: [laughs] you can do it

S10: this side doesn't work

T: oh I know, I know why . you put this too high you know, [TA demonstrates that the student had been holding the tube above the level of the liquid in the vat] the siphon will go back so you have to take some beakers here

S10: see you have to kind of=

S9: [unintelligible] the gravity principle

S10: everybody else make it work

[S11 raises his hand to get Chen's attention]

S11: [unintelligible] how do you make this work?

[TA walks over to student]

S11: this twenty five milliliters, how do you get that to work?

35 min

T:ah okay let's see [unintelligible] is open, this a three way stop okay?

S11: yeah

T: put this way it fills up, it just, here watch this . this is fill . and this is go down okay and then last step you use twenty five milliteters=

S11:/ what?/

T: /and you/ this is this is the beaker you want to use all right, ah flask, like this [demonstrates for student]

S11: so that will probably drain /out/

T: /yeah/ yeah

S11: for 25 mils oh that's cool

T: okay

S12: hey chen

TA: Hi

S12: when they ask for the more concentration of the ah NaOH . it means this here? [gestures to the vat at the top of the counter]

T: no no . Use this /one/

S12: /how/ do you figure /that/

T: /use/ this one

S12: this right here

T: yeah

S12: point one zero two seven

T: yeah

S12: okay we don't have to calculate it for the number of moles we use or whatever it is=

T: =yeah, it's already standardized

36 min

S12: okay, point one zero two seven

[TA walks around lab, stops at a student's table]

T: that's right

[TA walks around a bit more watching students-10 sec]

S13: Did you get [T: yeah]: my assignment, I wanted to just compare
 [Chen flips through papers]
 T: We'll let's see that is Max [unintelligible], Anderson [3 sec] there's yours
 37 min
 S13: just one?
 T: no 'nother one, we got two
 S13: that looks good
 T:mmhmm
 S13: I got that other one somewhere
 T: yeah that's so of course you have [TA laughs]
 [S 14 looks over TA's shoulder at the folder full of papers]
 T [to S14 waiting for his paper] you see I didn't arrange all of these in alphabetical order .
 So I have to. this one yeah. I think you have three . is that right?=
 38 min
 S14: here it is
 T: is that yours? Yeah that is yours you have three . and uh for this one . this is A 100 . I
 don't understand how you calculate . you see, although this is a short one but you still
 have to do your several calculation so=
 S14: I do ?
 T: yeah so I can't follow how you calculate this one so [TA laughs] I give you some
 example use your calculator here like this one
 S14: you want it here, right on here okay I see
 T: okay, even though the score is not bad [TA laughs] the total is sixteen I gave you=
 S14: =fifteen
 T: that is fine
 [TA continues to hand out papers 5 sec]
 T::[to himself] ah Gina [unintelligible] Gina, that's your lab report [hands lab report to
 Gina]
 Gina: okay
 [TA watches a student working at one of the tables 9 sec]
 39 min
 S15: is it supposed to be that color?
 T: yeah, do you use the ah what kinds of indicator you use
 S15:phenol thaline
 T: yeah . so it should be pink
 S15: hmmm
 T: it's a different way of, another one is bermophenol, /that's a different color/
 S15: /uh OK/
 T: that's a different color, yellow or something . let's check [Chen laughs] I forgot . yeah
 yellow
 [Another student tries to get Chen's attention]
 T: hi
 S16: Should I just wait until it totally, colors change
 T: no, you have to swirl the bottle okay=
 S16: =I did once
 T: yeah you have to wait le-le- you have got to ah you have got a permanent color
 S16: oh so I gotta keep shakin' it?
 T: yeah
 S16: and just keep goin' until we get the true color?=
 40 min
 T: yeah I think its almost done so just add very slow, drop by drop
 S16: that's what I've been doin', yeah see how its starting to=
 T: okay while you are adding the solution you can swirl . like this
 S16: so its just drastically going to change

T: /yeah/
S16: /as the/ [unintelligible] changes
T: and I think it is better you put a piece of paper under the flask, ah more easier to see the color change
S16: oh here's my [unintelligible]=
T: okay . any piece of paper is fine
[TA watches student 5 sec]
S16: white piece of paper?
T: yeah
S16: this is my [unintelligible] here I think,
[TA laughs]
T: oh something is almost . okay just watch it
[student swirls flask]
41 min
T: oh. slow down slow down . maybe you overdo . I think this overdo . not too bad but . you can get an even faint than this . even lighter than this . maybe just one drop more
[laughs] okay

Giving Advice

It is typical for a TA to need to give advice about physical procedures or problem solving in a chemistry lab. Notice ways in which the TA gives advice to students. How does he maintain a friendly and polite relationship with the students in the following situations?

The TA is watching a student check the level of the liquid in his buret.

T: I suggest you lower lower it down make uh this level . same height with your eye okay?

The TA is watching a student attempt to siphon sodium hydroxide from a vat into his beaker.

T: take a beaker to do that okay?

S10: it looks easier, [watches student still trying to lift tube into vat] what the heck

T: [laughs] you can do it

S10: this side doesn't work

T: oh I know, I know why . you put this too high you know, [TA demonstrates that the student had been holding the tube above the level of the liquid in the vat] the siphon will go back so you have to take some beakers here

S10: see you have to kind of=

S9: [unintelligible] the gravity principle

TA is handing back papers and gives advice to student about writing out his calculations.

S14: here it is

T: is that yours? Yeah that is yours you have three . and uh for this one. this is A 100 . I don't understand how you calculate . you see, although this is a short one but you still have to do your several calculation so=

S14: I do ?

T: yeah so I can't follow how you calculate this one so [TA laughs] I give you some example use your calculator here like this one

S14: you want it here, right on here okay I see

T: okay, even though the score is not bad [TA laughs] the total is sixteen I gave you=
S14: =fifteen
T: that is fine

TA gives advice to student about watching for the color change in the titration.

T: okay while you are adding the solution you can swirl . like this
S16: so its just drastically going to change
T: /yeah/
S16: /as the/ [unintelligible] changes
T: and I think it is better you put a piece of paper under the flask, ah more easier to see the color change

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