

## English Through Digital Thinking

英語教育研究室主催FDセミナー (2007.4.2) より

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以下の内容は当日の講演会筆録です。ワークシート等を用いた実践的な部分も多く含まれておりますので、多少読みづらい点がございます。なにとぞご了承下さい。

…I will make this introduction as short as possible. As many of you know now, John is currently the president of International Pacific College in New Zealand. He's also a professor at the International Pacific University here in Japan. He's Professor Emeritus of Columbia University's Teacher's College and since he has been granted that status, actually a scholarship fund has been set up in his name which he has very generously contributed too, and all of his public speaking fees, by the way, go into that fund as well. He's the recipient of the distinguished alumni award from Teachers College in 2005. He received his PhD from Teacher's College in 1971 and then spent the next 30 years of his life teaching in New York City and also here in Tokyo, where he set up the M.A. Program and TESOL back in 1985. As some of you may know, Teachers College is the largest and most comprehensive graduate school of education, psychology and mental health in the United States, which is for the most of the last decade has been ranked the number one professional school of education in the U.S. by the U.S. News and World Report. John is also the past president and the 2nd vice

president of TESOL International; he is the past president of the New York State TESOL Chapter, and he has also been named one of the 30 ESL pioneers by TESOL magazine in February 1999. John's passion for teaching began in Africa as a member of the first group of US Peace Corps volunteers in 1961. He spent 5 years in Nigeria, Somalia and Togo, where his interest in classroom observation was born. Observation can be as simple as recording, transcribing and analyzing teaching segments from different perspectives, which is a rather unique approach, particularly at the tertiary level, but it seems rather simple and is something that John continues to use today. John Dewey once said, "We learn by doing." John will agree but adds that, "We need to know what the hell we are doing in order to learn and to ensure learning." Three classic books written by John, which you've probably heard of, are 'Breaking Rules,' 'Contrasting Conversations,' 'Try the Opposite.' The titles of which fairly well characterize John and his approach to teaching. On that note it is my pleasure to introduce John, a real teacher's teacher.

Thank you.

At International Pacific College we have two programs, well, we have many programs, but in one program we have the same requirement that you do 80% attendance. Though I am president of IPC, I think it's ridiculous! And we have another program where we don't have an attendance requirement and in which program do you think the attendance is higher? Yes. So anyway, it is my interest in life to look at things and see how what we're doing is totally not productive and a total waste of time. I'm not saying that it is, but often it is. Now I heard somebody ask...I think you asked about the Saturday clubs? And we have there two, and what I tell the parents and all of our students is usually we look at the class and what people do in class as being like a gold coin. And what people do outside is a copper coin. And there are some stigmas if you just do activities and you don't do class. So what I am trying to do at IPC, not completely successfully, is to try to show that everything is equally valuable. So whatever a person's strength is, my goal is to build on everybody's strength. And when you have the attendance thing, it's not somebody's strength, right? So, this is some stuff that I'm putting in a book that I'm writing and for years I go to Staff meeting and just like you had today and we have at IPC and we have at Teachers...since 61' I've been to a lot of staff meetings in different countries. It's the same

conversation; you see that second thing, AOMSADI? That's a sentence, the first word is three letters... All of...short two letters, at, one letter, a...well it could be distinct it could be distinct...what's the next word? At a distinct loss? At a level? At a different level? Those are two possibilities. Most? My... Somebody said successful...another three letter word...it can be all of these of course. It's so obvious that you can't think of it. All of these and there are a few others that are possible as well, but the point is they are at different levels and some are studious, some are successful some are shy some are sad some are all range...and yet we treat them as a class. So, what I try to do in my work is to forget that you have a class. If you have x number of people in the room, and ideally that they work in pairs or triplets together but not as a class. Now I'm contradicting what I'm suggesting right now because we're in this Tachikawa Hall and here I am standing as if this is a class, so immediately we will change this and you can start reading the directions and do some of the activities. So the class is dismissed and now you can start learning.

What did you write for this?...

Is this number 1?...

Can you do number 1? Did you do number 1? No? Yeah?

I'm just looking to see what he wrote...

Which one do you want to do? This one?...

Okay let me interrupt you as you're probably not learning. So let me give you a break. Who's working on task #11? 10? 9? 7?

Now the directions say you can start anywhere. But why do you think so many people start with #1, 2 or 3? So my kind of thing is to remind us that everything we do is habitual. No matter what we read, no matter what training we have we follow certain patterns. We don't allow students to use erasers at ICP. Instead of erasers we give them a stone for an eraser. And it's very difficult, will they pick up the stone and then they try but it doesn't have the same effect you see. So after awhile they stop, but if we keep the eraser there, even though we use the same eraser it's just like smokers. Very habitual and then as soon as you go like this, they go Ah! And they put it back. But everything we do is habitual and I just, we had an opening around noon ....Sunday and we had a delegation from New Zealand come and we were going to have our students ....for three months every year. So the former governor general came and as you may know, New Zealand is not a Republic, so there is a governor general who represents the queen in New Zealand and every piece of legislation has to be signed by the governor general. So the first governor general who was a woman, about 15 years ago came to help us with the opening ceremony. And the mayor of the town of Brinn in New Zealand and the former mayor who was there when we set up our

college in New Zealand. At any rate, we took a tour here and there around Hiroshima and Kobe and as you know, guides on tours you can go to any country in the world and it's just the same nonsense. You know? They just the rule is this is what guides are supposed to do. So we're supposed to do certain things. If you're interested in an alternative history of education in the United States and the Western World, including Japan; though it's in the Eastern World look up a web site which is simply 'Vatto' and this man has written an underground history of education. It's just Google and you'll get a different view of education. It just shows you how crap we are in what we do every day. So anyway. You don't have to start with 1 and 2 if you got into the introduction of me and you got it...the main point is not to finish it but we're going to discuss how you were able to do it. So try to go to another task later on in the numbers. So you don't have to finish each task, just kind of do it and then we're going to discuss how you were able to do it. And it's okay to do it with someone else; I see most people are working alone. But I'd like you to do one of them together.

Which one you on?

So I'm saying that if you were from Scotland you might know them, but anyway you know them because you're both Doctors. Everyone starts with 2 or 3 because they read the instructions and everyone else ran with 7 or 8. Read the instructions;

use your head right?  
Let me see, 11? Um hm.  
A little break. Just a reminder, the reason that some people started with task you know, my introduction, the earlier tasks...was that they didn't read the directions. Saying that they could start any place and that's common, we try to do things instead of follow directions but like a vacuum cleaner they try the cleaner before they read the directions, just because you read the directions it might take you 10 times longer to figure out how to do the vacuum cleaner. So likewise with activities, people plunge forward instead of reading the thing. You might notice that you do that when you do something on the internet, you order something and then there is one box that you don't check off. And then you have to go back and back, you want to move forward. At any rate, I asked you to write down some things that you remember from what Paul says and there are a few things that I couldn't find in anybody's paper. 1) was Dewey? Did anyone write anything about Dewey? Oh that's alright. I couldn't find any Dewey's and Paul mentioned Dewey's. Did anyone say, "John said, "What the hell are we doing." So three rows back. All right. So alumni awards...? 1? 2? 1.5? Observation, Transcribing??? And Teacher's College 1? It's interesting, a few years ago when we were rated the president ....they rated 2 programs very highly ....I don't trust you as reporters. TESOL President? New York TESOL President?

Maybe he didn't' mention it...Or Teacher's College? Thank you very much. I said it with IPC so I lied about that. Anyway, what's the point? What I think is important out of all these things...Might be very different, which is as it should be, but getting back to our first point. Everybody is at a different level and everybody emotionally attaches to some things and ignore other things is natural. We got 5 people who are going to have 5 different things. Now if you go to that task...#11. That pre-association, that is the easiest way to remind people that everybody is going to have a different reaction if you give them a chance. But in the classroom you can't have a different reaction because there is a right answer. There is just what the teacher wants you to say. So what I used to observe in New York City and other places and the teacher would come in and write this on the white or black board or the green board and say, "How do you pronounce that?" This is an elementary school. Teaching the ESO. ....I can't answer the question, because I wasn't there the day before when she talked the day before that this was the pronunciation that they were working on. And the pick of the word, like, what's the word that ends in e...Hmmm? Is that what you said? Yea. So if that was the word then I could tell you, but I can't tell from this...but it's always what we digest today or what's in the book. So when I ask you what is

the word that goes here, all of these words, not every word but all of these words could fit here. So just to assume that if you say "shy, I should shake your hand and give you another cookie to me is a waste of time. You want to see what people see! Or perceive or they take in. So the role of the teacher is to bring out whatever is within and the more diversity the better. That's why they have 2 people working together so it gets to go a little more quickly because you each see something slightly different. Slightly different. Now some people said in line going back to task #3... Line 8...I originally wrote, "My wife is beautiful." And then she crossed it out and put in 'Japanese' well it turns out that 50% of the people were 'beautiful,' about 20% put 'geisha,' then they see that it doesn't fit...I mean it fits the picture but not the structure, the picture is a distortion, it's noise you cut it into pieces really. But when I give this, many people say she is in Auckland because there is the sky tower in Auckland so of course you have to depend on your own experience to fit. And then you have to compare your own experience with the experiences in front of you. But it's not wrong to say, well it might be if you look at her... beautiful is at least non-linguistically or potentially in real life wrong, it's just a description that fits. A number of predictions fit in some of these. And now in Line 9 I used to not

have the picture there, it's a very uncouth picture so that becomes noise so I just used to have 'W-H-T-D.' And then some people would write we have 2 dogs. Remember there was no picture of the people, just the D. And then they live in New York and they say, wait a minute...John lives in; you see... Wife in Tokyo they can't be that rich that they can have 2 dogs living in their apartment in New York, based on their own thinking and previous knowledge. Give people a break! So in Japanese schools, in New York all over the world, the one who gets the hand up first gets the answer! Oh Very good. And everyone else...quiet and then the role is set for the whole semester. And think about something more appropriate. So time is very important, every study that has been done has shown that if you give people 5 times more time and you get a longer response and you get more people responding. So I ask our teachers to write down a question, to ask the students to write it down the question they ask ...write who answered it and then turn the paper and then you can start pointing to different people and of course you get more participation. Everybody participates. They don't read what they wrote but it changes the process, takes their experience and they think about it and then produce. So speed is of the essence and we keep covering stuff, it's like the Shinkansen. But you can't see much if you get there quickly.

So the trains in New Zealand so tare very slow and you can really see stuff. And then you get there and realize you need another book. Time, Time, Time. So, the pre-association in line that page 12, #4 some people put a lot of people put 'Camera,' and some people put, 'small' what are some other words for Bit that comes to mind? Even if ... 'little,' 'dog,' what? 'Bite,' 'Horses Bit,' yeah...a bit more...a bit of chocolate...I use it, those are all exciting and I will put that in the book when, I mean I have to put it in a chapter but it seems different things, but to me... this little dot here could be a bit of information...this 1 could be a bit of information, these 2 together can be a bit, this can be 1 bit or all of these letters could be 1 bit ...and these are external bits, things outside that kind of light up the cells in your brain, so in your brain you've got a lot of bits too! Stored in different places, so you've got words that are polite words. Now if you had to go alphabetically that began with t through your brain, you'd still be working on this. So you don't go through your brain and go to the alphabetically through a list...you go to a lot of files, what kind of things can occur in the first position? So you know what's first position because of the position plus the capital in the words to know, and once you know please... then it's not write + down it's write down! It's one bit, and if you think of right plus v as 2 bits

then you've got a problem. When we teach, walk, and then we say that's the basic one...and then we have walk + ed that's another one and then it's walk + s that's one way to do it...that's looking at these as 2 separate bits and this is 2 separate bits and this is 2 bits and the other way is to different bits, walk, walks, and walked and they are totally unrelated and they are different bits. So, the reason I use bits instead of words is that it's elastic, if you go from one period it could be to a large segment they can all be bits, they can be external and internal bits. If someone of you guys did that thing about 'crotch,' poor man jumping through the crotch? How many are from Scotland? Anybody? England? Did you know...? Okay. Yeah? It's a very unusual term for people outside of a certain geographical area, yet everyone knows what it is. What else can it be!? So usually, we go into the classroom, instead of writing e on the board, we write what crotch? Well there's no such thing as crotch, has to be 'a' crotch, 'the' crotch, crotches...that's the first problem. And nobody knows the answer! I mean, nobody knows the answer. How would you know the answer?

Algebraic equations, what is the value of x? Hmm? You can't say you don't know...How do you know? Because I look at 21, you equal signs and add the 3, in all the text-books in the world, in English they say 'What is x...no one knows crotch if you

put it up as x, the reason you know crotch is because you've got this relevant information around you. So if they don't know the word, cross it out-- get rid of it; it's noise! Draw a picture and 90% of the time they know. If they can't draw a picture, they can see whether it's a thing, a person or a place or an action or a feeling. And if it's a feeling, is it positive or negative? If it's an action is it a big one or a small one? Dangerous or safe? And then they get it. One per six tries they will get every word you put in front of them, assuming they know about 80% of what's in the text. So in Japanese high school, most students know less than 40% of what's in the text, so all you can do is transcribe and voice ...and try to get them to memorize lists from their cross-read or some rules. The University entrance exams should be a reading level comparable to what the students do in High School and it should be similar kinds of text. ...and to show how clever they are, so the highest level reading in high school is 10th to 12th grade but a lot of them are in the 8th grade levels and the university is around 12th grade. The more obscure the patterns, I mean... 'why?' To show people what they don't know? Oooh, English is difficult. Of course it's difficult if you do it that way. So anyway, what people know not what they don't know can make you have a different experience. Now if I'm going to open that door, how many possibilities are there? Let's say

I'm going like this and I'm opening the door. How many...choices do I have? Well I'd write...but that doesn't make too much sense for this one...so I can eliminate slide right by just looking. And slide left, that doesn't make sense. Automatic? It's not happening...so what are the other possibilities? So basically two, if there is a lock we got another problem. But it's usually 2 to 6 choices with opening a door! And you see all sorts of different kinds of doors in this gym house it's the same as grammar and vocabulary, so in the one passage about the ore refinery did I ask you to circle time words? Or mark time words with key? Find that would you? What task is that? Task 7? A for action, what did he come from? Oh right, t for time words, and place I have something about place. There is p for place words, yeah. So you ask students to circle or cross-out words they don't know. A lot of people cross-out 'Oklahoma' 'William Bradley Pitt,' 'Springfield, Missouri' You don't have to know those words, just know they are places and if they worry about spelling Oklahoma and Missouri then they are wasting their time, and if you had to spell all the place names in the world you could spend a lifetime memorizing all the place names, right? Even just in Japan of all places, you could spend your lifetime; it's a waste of time. So what's important, what to focus on is very significant. Now if you go back to the task that you already did in my introduction, 'Hi,' what

is that? 'Hi' my name is...and could you just say about yourself instead of me? 'Hi my name is...' 'Hi my name is Nick and' no no, 'I was born in...' lucky you. Lucky you for me, so anyway! At some point, they have to personalize, plus do my introduction and plus read about Brad Pitt. Anyway, how were you able to do that? You know what's in an introduction; it's just certain things. Anyway, go to page 4, task #4a and then task #4b which is on page 5. Play with that a little bit, why are we able to do that and why are we not able to do the introduction? Yeah.

Yep. Okay. Now you see. One thing that is really, I'm sorry; stop pass 4a on page 4 and go back to page 3. I was born in Chicago I confess. One problem is that you use 2s instead of 1, but it doesn't matter, the point is, this is the kind of thing that some people... now, if I did this with a group of Indian teachers and they put, what do you think they put? Calcutta, India. They are going to put a small place in the big place and you can also put a separate integer of I, I confess that I was born in Chicago, I confess...well! Some people don't...they are orphans or their parents died, I was born in Chicago, I guess! I'm not sure! So I confess, I guess so it can be in that slot you can have verbs, or you can have a small place in a big place! That's just what you want, how stupid! You can have only places...what's the point; you want to make use of what people know! No

wrong answers! That's why we don't want people to erase, there are no wrong answers. They are predictions that you make and then you make other predictions based on new information. And you learn and you see the progress. Half of our students did what, they erase what is already correct. So they can see the progress and it's amazing how no erasers has profound effect on the interaction. On what you think is an error and what you don't think is an error. Anyway! What was I doing...oh yeah; I just wanted to point that out. Now, Chicago Illinois is the home of the Chicago Bulls Basketball Team. Most young women in high school in Japan are thrown by this one completely. The boys put down Chicago Bulls right away, you say Michael Jackson that is all it takes. Michael Jordan! Sorry, why did I say Jackson? Why? Because someone previously said they censored Michael Jackson from the video, that is on my mind, no censorship. I don't like it. So again, you got all these connections and it comes out that thinking in action, wow. So anyway. So all you have to do to the young women in the high school is mention musicals and they put Chicago. Parents of our students, gangsters, then they put Chicago. Then I was working with some teachers and the teacher said 'Chicago' but she couldn't get this i with the s on the end of it. And it turns out the version that I gave her didn't have and it just had chi, C for Chicago so she had written that she was born in



Chicago and then there was just an i. She said, 'I have no idea!' And just as she finished I have no idea ...just as she said dea...in idea, not ide-a. I put in asked her then she suddenly said Illinois. Isn't it strange that she had no idea and then I draw an s and then she says Illinois! I said why did you lie to me? How could you come up with this and she said, 'Mark Twain.' She read a lot of literature and 'Mark Twain' wrote a lot about Illinois and the Mississippi river, so she doesn't know about Michael Jordon or Michael Jackson or the musical or basketball but she knows about Mark Twain so everybody files things potentially a little differently and that's why people are not only at different levels linguistically and experiencewise, anyway that you can think of people are at different levels emotionally, intellectually and you want to draw out whatever they have and use it! And show them that they can use it! Usually our role as teachers is to make people feel helpless. We take their tongue away! We have an experience in New York some years ago when we had a snow storm, we had a community English program for the practice teachers at Teacher's college and so we gave an expensive lessons to the people in the community, we also videotaped the classes and so these students start coming in and inadvertently the technician already had the camera on. So the video tape is going and these students come in and they start chatting with each other about the

snow storm and how they got there and the problems. And then finally around 6:15 the teacher decided that since nobody is going to come and the teacher said, "okay we're going to start class now, you can turn on the video," and the video turns to her and says 'it's already on!' and then the teacher said, 'How did you get here?' Did you have any problems getting here? Not a word! And then the teacher started teaching a pattern, 'it was snowing,' okay everybody, 'I slipped on the sidewalk,' there I just said that I slipped on the sidewalk. Until the teacher started asking questions they were communicating. Soon as the teacher said now the class is going to begin, everyone's tongue was cut. So we often say that students are shy. Some of the questions that we ask, 'what does he want us to say?' has nothing to do with shyness, 9 times out of 10, so anyway...So far what counts? Good answer! What's the answer I'm looking for? Hmm? What? Yes, what's on my mind? I mean, I'm looking at the clock and I'm saying, what time is it? Why? So why am I asking you? Well I want a different sense of... Anyway, a lot of our students take their tongue out of their mouth and the parents are like this and their grandparents are like this!... In New York the correct answer if you're out on the street at night and you're a minority person and a policeman comes up to you and says 'what time is it,' you go like this, and you say 'I didn't steal

it.' Or you take your cell phone out and say, 'no I didn't steal it,' so why am I asking you what time is it? I want to get a sense of when would you stop, because there is a clock right there. How do you know this? What is the intention of a question is not always easy to find out. So anyway, just getting back to bits, I think the role of the teacher is to make use of these many bits these students have in their minds, known bits which I call old bits, that's what people know. Oh! And then, ah! That's what you don't know. So you cross out crotch, that's an ah! And then you look at all the other bits that you know on the page and compare them with the bits you know in your mind and which thing there enables you to draw the boat? Is it the beach? Is it the oars? Is it jump in? And then those old bits I call Ah bits, because they enabled you to make the discovery. So if I had my way at IPC you would think as the President I would have my way, but it's a different story it's a very bureaucratic organization as far as education goes, but I would not give any grades. No grades. Just you have kids with a little microphone, iPod with the microphone and at the end of every 15 minutes or so and they would count the number of ah's, if there were no ah's, 0. They didn't learn, I mean there is no 0 but if they said 'ah' they learned something. If they said, "huh?" followed by an ah, then they learned a lot. If the teacher told

them then they didn't learn anything. That's what the title of this book is, 'Ah! That's what you don't know, what you always knew and the old bits that enable you to make the discovery of what you know now. It's interesting when you see digital, people put camera and all these other associations. In 5 years I will hope you all put down ah, huh, oh. Hahaha. Anyway, I'd like you to go to page 7. So I asked you to put down A for action, so in line one, I would circle 'was born in,' as an action. Not was, or born, but 'was born in.' I would also put T above that because it's also some time bits, again words there is a problem. 'Was born in' is one bit, 'in Oklahoma' overlaps. If you just put Oklahoma I'd think there was a problem, but it's 'in' Oklahoma. It's not December 18th 1960 I think it's December 16th, 1863. So if you think of bits instead of words you can group words in different ways and students can see groups of words rather than individual words. On page 9, you don't have to do it but I ask people to do a lot of yes no questions and either/or questions and question word questions. Brad was born in Oklahoma on December 16th 1963. The first thing some students write was 'Where was Brad born in?' Because they haven't experienced grouping these words in these ways, the point of this is to integrate vocabulary and grammar to manipulate language. Some people talk about the diminutive approach and the other one, whatever it is.

And they say that we should focus on form or ...that doesn't make sense, it seems to me that meaning comes from an integration of grammar and vocabulary. Word order and suffixes, function words, those all fit together and so to think of rules and definitions and try to put them together, I think it's nonsense. So the idea that students can do more holistic things plays with language in the fun way so that's what these different activities are. So we got 2 rules at IPC as teachers, whether they are English teachers or they teach environmental studies, 2 rules...or...same meaning, and...or...same meaning. English class, other class. So any g, any a, any v or mv. So these meanings are the same. And these meanings are the same but this is for English teachers and this is for teachers who teach English plus environmental studies or whatever. So right now these are what I would call 'ah' bits, what the hell is this...so you got three 'ah' bits here, and so we'll just narrow it a little bit. Okay, so this becomes the 'oh' bit which enables you to make the discovery so that's an 'ah' bit. So suddenly, this then became an 'ah' bit, so you don't need the whole thing. Once you know, never explained vocabulary, you never explained the or; and never defined words, there are 2 ways of saying it, with an s or without an s and grammar or never explain anything! Never explain anything. Because when we look at the textbook and look at

the classroom there is very high percentage of this, so you can imagine what the teachers think of me when I teach them, "this guy is nuts." It turns out that some of the teachers who start to do this, of course, have a different view of what the students should take...but we're so into 'doing' teaching a certain particular way that it's very difficult to not do it that way. Who adjusted the lights? Earlier I had some of them off, did anyone go and touch the switch? No one has done that? No one? Are they automatic? Okay, anyway, where was I? I want you go to page...what helped you pass 4a and 4b? On page 4 and 5? What helped you and hindered you from doing that task? Well, do it now. Ya...

Right. So there is a mixed message. Right. So the question is, if you come to this, you can kind of... how could I do it? Just look at it quickly and then write or then do it and write again? You could do that, but again; we feel as if we have to teach something for the students...

Another one, why you couldn't.

Okay, sorry to take a little break from your learning. Page 8; task 8, imagining meanings, draw one sketch or symbol which would in these 2 sentences; most textbooks have sketches for content work, but what I've never seen is symbols and sketches for function words. So that is something quite a distinct difference in task 8, it's interesting to me that many students from different countries,

incidentally not just Japan, for is ...and for are, for have, 2 hands, and for has, 1 hand. So that means symbolically they understand the concept of those verbs. So you know, kids start drawing in the sand pictures before they do alphabets around the world and historically humankind did the cave sketches before they did alphabets so it makes sense that in class you would make use of this basic skill that everybody has. Then someone says, 'we're not in kindergarten what are we doing sketches for?' when I go to the doctor 9 times out of 10 there is a sketch as part of the discussion. The dentist, he's got to look at the x-ray whether we want to or not, I don't want to show you...it's a very common thing that we do, normally outside of the classroom, all professions. So it's not childish and it tells you symbolically, at what level they understand. And it's another association they can make then when we do correct them it doesn't show them that those symbols their words for the places which are not your words, that is just a minor point. Task 8. Just, get back to odd bits, you know in the beginning...people write down the a, 1, b2, and then in the beginning they go through each letter and then after all of them they say, 'wait a minute, I really only have to know right here, once you know that's j, you don't have to check the other three!' because you have the internal bits and these are external bits and you have internal bits and they

make John. But once you know it's J capital, and I was introduced you don't have to go back to your crib which are external bits, you access your internal bits! So this idea of Internal External bits is kind of important. To me, the role of the teacher is to provide the smallest number of external bits that you can so that the student can still make the discovery. Do the 'ah.' Partial information will lead to more learning and completing. Because they have to fill in. they have to use their thinking skills so that is what I mean by individual thinking. Arranging these bits so they make use of their internal bits to get the external bits they don't have, simple concept but it sounds like... Someone said, 'what is the difference between analog bits and digital bits,' which again shows that people are thinking about what we're talking about. Anyway, last thing, no, second to the last, just as you go to page 14, flash reading leaves 80% grade level 3.8. I don't know if you do this for all your hand-outs but it's really useful to find out what level their reading is and all you had to put on Microsoft word readability statistics, it's never picked off as an option. Or it usually isn't, but you usually have to go in and pick it off and then after the grammar and spell check this will come up. Sometimes, the student should do it with the writing, so if they are reading easy is 40% then they shouldn't hand it in, they need to have some revisions before they give it to

you. The grade level is important, if the reading passage is right for them and they should know what reading level they are comfortable with. So that it's a very useful measure that is not used by 90% of the people who use Microsoft word. Anyway, the main point is that I am doing what I told you not to do, explaining here at the end, I have a list of activities. The back sheet I just want you to do one thing then we are going to eat, just draw a sketch of what you think the main point so far today. One sketch on the back, that is the final exam. Then when you come to the table and when you come to the table if I like it you eat and if I don't like it you can't eat...

So the question is, 'how can you figure that out even though it's wrong?' and then using it as your internal bits and then you are saying that my internal bits are more important than someone's external bits. So like in the suffix, sometimes you see things that you would put down. And then something might fit. But they should realize that the fact there is a mistake here and not there, so it's important to have confidence in your ... sometimes to let them know that it's wrong. Give them some kind of grade and then...

No eraser. Ha-ha-ha.

Will this come up, Arnold, if I type this in? Huh?

On page 2, in John's introduction. You see in the third line that it's IPC 9-16-3. Then in the second line you see an upper case One, One

three. What does that mean? 1-13. So what does that spell? 'ah' 'am' does that make sense to anybody? Nope? Upper case One, there. Is a mistake! So what you have to realize that there are the internal bits that sometimes have to be cut more than what's outside, so that's an example of noise. And that picture of the stadium above home of the Chicago Bulls is another example of noise. If you look at that picture long enough, you'll never figure out its home. So you have to make use of the internal bits and realize that sometimes you're no more than what's in front of you. Internal bits versus external bits, so go with the meaning doesn't make sense the way it's written, you have to make sense and that you know from your own experience.

Okay, so let's climb up and I'll see you at the other... so thank you very much for coming I've had a wonderful afternoon. Thank you.