

Transcript

Episode 119

Minding the Mind's Eye in Slides | Feedback on Abortion Misconceptions

The A&P Professor Podcast

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Introduction

Kevin Patton (00:00):

The performer and social commentator Will Rogers once said, "Good judgment comes from experience. And a lot of that comes from bad judgment."

Aileen Park (00:12):

Welcome to The A&P Professor. A few minutes to focus on teaching human anatomy & physiology with a veteran educator and teaching mentor, your host, Kevin Patton.

Kevin Patton (00:24):

In this episode, I talk about feedback from a recent discussion about misconceptions regarding pregnancy and abortion. And I talk about considering the mind's eye, especially when creating slides.

Offensive, Strongly Disagree or Disapprove

Kevin Patton (00:36):

In past episodes, I've mentioned my general distaste for student evaluations, but despite my best efforts, they still exist in my life. And yes, I always look at them. As I've said, I usually rate pretty well in student evaluations. My evaluations seldom reflect the strongly biased low scores and insulting comments that many people who don't look or sound like me have gotten, a phenomenon that has been widely documented in the literature. So far I haven't even seen any ageism creeping into my student evaluations that some of my other boomer professors see, but I do get some of those weird and negative comments that are so off base and ill conceived that I often can't help it to laugh.

Kevin Patton (01:48):

You know, where they complain that the only way to know what's going on in the course is to read the syllabus or some other comment that turns out to reflect the student's own incompetence, not mine. But there are sometimes overly aggressive or otherwise exaggerated negative comments that get me wondering whether I really do need to change something. Usually not. Usually I get that useful kind of feedback from surveys that I've done myself, not from the official student evaluations that are administered by the college. Or more often, I get that useful feedback from the debriefings in student reflections that I've talked about in past episodes. But in the official evaluations, it's not

uncommon for me to get dozens of glowing reviews of my courses and just one or two awful ones.

Kevin Patton (02:49):

And you know what? When I read the good reviews, I kind of don't give them the weight they deserve. I instead zero in on the bad ones and fret about them and keep replaying them in my head. And I talk to my peers about them and I question myself. I give them way, way more weight than they deserve. But still, it's good to think about them a little bit, just in case there's something I need to improve. I don't think I'm the only one that does this. Maybe you do that too. Well, it kind of works the same way in this podcast. You may know that for almost 10 years, I had a blog of the same name, the A&P Professor before I started this podcast. Every new episode that is released is also posted in that blog, which is still going. You can find that blog at theAPprofessor.blogspot.com.

Kevin Patton (03:58):

So if you follow the blog, you know when the new episode is released and you can look at the show notes and play the episode player right there in the blog post, some of you do that regularly. One way to follow the blog is the sign up for the newsletter version by filling out the little form in the sidebar of the blog. A service called Feedblitz will then send you an email copy of each new post a few minutes after it's been posted. If you want to stop getting the newsletter, then simply unsubscribe using the button at the top of any email that you get from that service. By the way, here's an important tip about that regarding this and any email subscription you have, always canceled by unsubscribing, don't mark it as spam or filter it out of your mailbox. Because when you do that, your email internet service provider will notice what you're doing, and eventually market is spam for everyone in their service. So you may inadvertently be blocking that email newsletter for a whole lot of other people who are using that same provider.

Kevin Patton (05:21):

Anyway, when you unsubscribe from a Feedblitz email subscription, they'll ask you the reason. You'll have some choices to choose from, it's like a multiple choice test. And then I get a copy of those responses too, so that I have a clue as to why folks are dropping. Over the last decade, I've gotten surprisingly few unsubscribed notices and almost always it's the same reason listed. And that is "content is no longer relevant". Really? Okay. I've come to the conclusion that what that means is I'm not teaching A&P anymore. It's not relevant to me anymore. Maybe I'm no longer teaching at all and that's why it's not relevant to me anymore. But at first, the way it's worded, I thought, oh wow, you don't think my content is relevant to teaching A&P? How can that be? Yeah. I think I'd have worded that choice differently.

Kevin Patton (06:26):

But you know, it's like those darn student evaluations, right? The questions and choices don't always fit what we really want or need to know about our course or in this case about our podcast or blog, but okay, no big deal. The reason I'm bringing this up is that for the first time in over 10 years, I got a notice with this response selected "offensive, strongly disagree or disapprove". Ouch. It's like those bad responses in a student survey. You know, the ones that, ah, it takes a long time to get out of my head. The ones that I can't stop fretting about, the ones that seemed weigh more heavily than they probably should. As I molded this one over in my head, more than I should I think, that offensive, strongly disagree or disprove response gets me wondering, which is it? Did my content offend you? Or do you strongly disagree with my content? And what does that mean if you disagree with my content?

Kevin Patton (07:44):

It's a concept I shouldn't have brought up maybe, or maybe you're disputing my facts or disputing my conclusions. Or was it that you disapproved rather than found it offensive or strongly disagree? Well, okay, if you disapprove, what are you disapproving? Me? You disapprove of me or you disapprove of my voice or you disapprove of my content, or do you disapprove of my opinions about that content? Or do you disapprove of my sponsors or don't you like the logo? It's a hip logo. Why don't you like that? I don't know. I mean, it doesn't give me enough information as to what went wrong.

Kevin Patton (08:34):

I'll try to figure out those reasons and talk more about this kind of reaction after we take a short brain break.

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Kevin Patton (08:45):

Whether you prefer a little boost for your hearing, or you have a little trouble with my Missouri accent, or simply annoyed by the sound of my voice, or maybe you just want to find that one little thing that we said in a previous episode, there's a searchable transcript and a captioned audiogram that you can use for that. These tools are sponsored by AAA, the American Association for Anatomy, which you can check out by going to anatomy.org. One of my favorite resources from AAA is their journal for teaching and learning anatomy and physiology called Anatomical Sciences Education. I've mentioned that before. An article I ran across recently in ASC is called Air Anatomy: Teaching Complex Spatial Anatomy Using Simple Hand Gestures, the air anatomy

approaches interesting. And I think it may help students who struggle with visualizing anatomical shapes and relationships.

Kevin Patton (09:50):

There's a link in the show notes if you want to read it.

Pregnant People

Kevin Patton (09:56):

I've been discussing a reaction I received in which someone unsubscribed from the blog that posts these podcast episodes, stating that they were ending the subscription for this reason, offensive, strongly disagree, or disapprove. Now one big clue is that it came out on the same day as episode 118, in which I exhorted us to make sure that we don't have any misconceptions about human reproduction in our courses because they are common, and because they're often used as a basis for policies, regulations, and laws. As I explained that when we put lines one must not cross into a law that are not really clear lines at all, nor any kind of boundary, even a fuzzy boundary. Well, then it makes a bad law and it makes it confusing about how to stay on the right side of that law and will likely cause harm, possibly death to well, to my family, friends and neighbors, and everybody. Yes, this relates to the current and hotly debated abortion law controversy.

Kevin Patton (11:13):

But in that episode, I didn't advocate a position on whether abortion should be legal or not, or whether it's a personal medical choice, perhaps my bias leaked through, but I didn't intend to make my position part of the content of episode 118. I'm guessing the unsubsubscriber didn't like something about what I said. My stated position in episode 118 is that we should strive to avoid misconceptions in biology when teaching A&P. And that's especially true regarding pregnancy because yeah, it affects important public policy regarding abortion. I can't imagine that unsubsubscriber is in favor of teaching concepts that we know to be wrong of preserving misconceptions. I don't know. Maybe it's like a student who doesn't do the research paper assignment, but complains about it on the student evaluation anyway, maybe they didn't listen to the episode before they unsubscribed and use that as their reason.

Kevin Patton (12:25):

Another possibility is that the term abortion could be monitored by the IT department of the unsubsubscriber's institution and getting emails with that word in it might cause trouble for them. I've seen stranger things happen, and I completely understand unsubscribing

in that case. After I got that unsubscribed notice, I also started getting feedback on this episode after posting it in a social media group that I belong to that's just A&P professors that may also shed light on that unsubscribe action. I started hearing from A&P instructors at religious private and public institutions that there are some really strict restrictions on teaching, probably mostly in high schools, but I think in higher ed as well. Some restrictions seem to be spelled out and some are implied. But apparently, in some places, even responding factually to a fact based question from a student is a no-no if it relates to any of the restricted topics. Oh, that leads us down a whole other road, doesn't it? Banning of scientific topics and science courses.

Kevin Patton (13:46):

You know what? Let's come back to that in a later episode. Why don't we do that? But let's get back to episode 118 for now. Okay. As I fretted about all this and molded episode 118 over and over in my mind, I did consider something about that episode that I do regret. I really don't think that unsubscribed was thinking this way, but really, how can I know that for sure? This regret of mine occurred to me before I got that notice, actually, it occurred to me just as the episode was being released by the syndication system. But the notice got me to focus more on that regret that I have. In episode 118 when discussing pregnancy and related issues, I refer to mothers into women being pregnant, but we know that although it's less common, a person identifying as male or is non-binary or some other non-female identity could have a uterus and could become pregnant. In the moment of recording episode 118, that variety of human experience simply didn't occur to me, but it should have.

Kevin Patton (15:04):

I've been trying to hold a more diverse view of humanity in my head. I've been trying to be more inclusive in my teaching and in this podcast and well, in every part of my life. And I tripped up, didn't I? I didn't hold to my goals there. I made a mistake and I apologize for that. And I promised to use this as a learning opportunity. So if you were offended by that or disagreed or disapproved of that, well, guess what? Me too. If I do that again, or if there's something else that troubles you, whether it's objectionable or simply something that you want to debate or have a different take on, why not let me know exactly what's going on? One option is to give public feedback by calling in or doing an interview on the podcast or sending in a written comment for me to read on the podcast. Another option is to have a direct and private conversation with me. Either way, I want to know what's on your mind so I can grow and maybe we can grow together, hay?

Sponsored by HAPI

Kevin Patton (16:27):

The free distribution of this podcast is sponsored by the Master of Science in Human Anatomy & Physiology Instruction. The HAPI degree. I have been on the faculty of this program at Northeast College of Health Sciences for more than a decade. And I'm still excited about all the evidence based teaching strategies that our learners apply directly to all the major topics in the typical anatomy and physiology course. It's so great to work together as we improve our teaching skills and our scientific knowledge, check out this online graduate program at northeastcollege.edu/hapi, that's H-A-P-I, or click the link in the show notes or episode page.

Mind's Eye: Phantasia

Kevin Patton (17:18):

What is the mind's eye in English? The term mind's eye goes back at least to Chaucer's Canterbury tales. And it's been mentioned in Shakespeare's play Hamlet, and in lots of places in both fiction and non-fiction literature. But the concept of a mind's eye goes way back further than that in human history. What's important for this discussion is that, well, it's a thing among humans. Something we talk about and refer to as if it's a real phenomenon and ability to see visual representations of our memories. Back in the 1880s, Sir Francis Galton published a paper called Statistics of Mental Imagery, which was essentially about the mind's eye. Galton defined his main investigative question as "the different degrees of vividness with which different persons have the faculty of recalling familiar scenes under the form of mental pictures." He asked his subjects "to think of some definite object, suppose it's your breakfast table as you sat down to it this morning and consider carefully the picture that rises before your mind's eye."

Kevin Patton (18:51):

He was surprised to find out that not everyone has the same ability to picture things in our minds. Some have a distinct mind's eye and surprisingly to Galton, some don't. And of those who have this ability, it varies a lot from person to person. That is sometimes the picture one sees is big and vivid and detailed and in full color and very clearly seen as an image. For most people to picture things it's somewhat less clear and a little less vivid and less detailed, but still visible and useful in remembering things. Aristotle called this ability to see mental pictures phantasia that's spelled P-H-A-N-T-A-S-I-A, phantasia. You know what? Now's a great time for, yes, you guessed it.

Speaker 3 (19:52):

WORD DISSECTION

Kevin Patton (19:56):

Where we look at the word parts that make up scientific terms, just like we do in our A&P class to help students become immersed in their new language of anatomy and physiology. The usual meaning of the word phantasia in English is fantasy. But in the original Greek, it means appearance or look or presentation or display or image. So, yeah, that's a pretty apt term for the mind's eye if you want a word that's not easy to spell or pronounced, which is of course, what we look for when coining a new scientific term, right? We can't just call it mind's eye or mental image. Let's come up with something in Greek where it's phantasia, but it's not with an F, it's with a PH. Let's do that. And maybe it's kind of hard to remember too, because it's not a word that we typically use a lot in conversation.

Kevin Patton (20:53):

There are also two related terms that have come into use that I want to mention. If I add the prefix A to form aphantasia, well, I think, you know what that condition would be, right? That a prefix means without. So aphantasia refers to a situation where a person does not have that mind's eye liability or maybe it's very weak. And what about the term hyperphantasia? The prefix hyper, we all know means more than, and so a person with hyperphantasia has a better than average ability to picture things in their mind. Now there's some research that shows that aphantasia can be congenital or acquired. Maybe it's acquired through a brain injury, for example. And the research suggests that people with a low ability to visualize memories can still recall things about what they've experienced or learned, but they generally have a lower than average ability to do that remembering.

Kevin Patton (22:02):

Besides a lower ability to retrieve useful information, people at the aphantasia end of the spectrum seem to have a lower than average ability to predict things based on their memories, which implies that their ability to apply concepts to new situations, that is to solve new problems using old information is also reduced. So taking this all a step further, maybe it's not a leap to suggest that if one has trouble visualizing a concept in anatomy and/or physiology, one is going to have trouble remembering that concept and will have trouble retrieving that concept later when needed to make applications or to solve problems. You know, all those things we ask our students do in our course all the time, especially in our tests and other assessments. That's something I haven't been

able to find is whether phantasia the ability to see things in our mind's eye is something that can be developed or remediated if it's not working very well.

Kevin Patton (23:19):

Hey, if you run across any information on that, I'd love to hear about it. Maybe we can then find ways to help our students who trend toward aphantasia. Give them a pair of glasses, a virtual pair of glasses that improves their mental imagery and therefore their chances for success in the A&P course. There are a few hints that being visual in everything we do as such students in the activities and resources we use in teaching helps a lot. That is using images or models or specimens as students can look at in presentations or in active learning projects or in tests or in other course elements that can perhaps substitute for an imagined image in the mind. So in other words, the more we use images, the better it's going to help those students that have trouble conjuring their own images in their head.

Kevin Patton (24:24):

And likewise, encouraging such students to use images and models in their own learning processes and their note-taking draw pictures and they're studying and their lab work, maybe that can help. Maybe even allowing students some extra paper during a test to draw things out for themselves could help some of these students. Maybe any of these strategies can help all students. I think that's probably the case don't you? Until we understand more about aphantasia, at least we now know just a little bit more about this particular challenge to learning. And with understanding, we can develop the empathy and compassion that motivates us to support our challenge students. And perhaps also this underscores what I think is a core concept of teaching and learning. And that is each of us has a mind that works differently than everyone else's mind.

Kevin Patton (25:25):

So as a teacher, it does not help when I assume that any individual student thinks like I do or even thinks like I did way back when I first took A&P.

Sponsored by HAPS

Kevin Patton (25:42):

Marketing support for this podcast is provided by HAPS, the Human Anatomy & Physiology Society, which you can check out by going to theAPprofessor.org/haps. That's H-A-P-S. One important initiative of HAPS is helping us all figure out what the trends are in teaching A&P. I'd say that's the most common thing that brings us together. A desire

to learn from each other and hear about what others like us are doing in their A&P courses. Well, it's time again for the HAPS lab survey, where we're once again asked about our lab course curriculum to see what's new and to see what's the same. You know what? That that only works if people participate in the survey in each round.

Kevin Patton (26:42):

I'm asking you to do your part by going to theAPprofessor.org/hapslabsurvey, that's all one word lowercase, theAPprofessor.org/hapslabsurvey and add your input so we can get a really accurate picture of what's going on in the world of teaching lab associated with our A&P course.

Mental Imagery in Slides

Kevin Patton (27:13):

We can take from our previous discussion that some students don't really have a distinct mind's eye. That is, they don't really visualize things in their mind very well. A condition that can be called aphantasia. That implies that when we talk about a structure or a diagram, or perhaps even tell a story such as using an analogy, these students need to actually see the thing or a visual representation of the thing, because they're not picturing it in their own mind's eye, they can't do that. They don't have that ability. Even those that do form mental images easily can't really use it when they don't know what to picture or have never learned what that something we're talking about looks like.

Kevin Patton (28:13):

What I mean by something, is an anatomical structure, whether it's a specimen or medical image or detailed diagram or simplified diagram, or maybe a physiological representation such as an EKG graph or the oxygen-hemoglobin dissociation curve, which gives me the opportunity to once again, mention one of my favorite scientific terms that it's been so long since I've been able to say this in a podcast, carbaminohemoglobin. Oh, isn't that cool? Doesn't that make you just feel good when you hear that term carbaminohemoglobin? And there's a name for that feeling too, but we'll talk about that on some other podcast, but there are physiological images that we sometimes picture. I know in my mind's eye, I can picture that sigmoid curve of the oxygen-hemoglobin dissociation curve.

Kevin Patton (29:06):

Or maybe something like the cardiac pumping cycle or a homeostatic feedback loop of some sort. Or a chemical equilibrium. Or, well, there's lots of different actual visual

objects or visual representations that we talk about in our course, that students read about in our course, that students explore in their active learning activities in our course. Both anatomy and physiology are very visual in the way they're communicated, in the way they're taught and in the way they're understood. As I mentioned in an earlier segment, I think a good approach is to be visual, meaning provide images and models as much as we can in every aspect of our course, our lectures and videos, that's obvious. We want to use lots of pictures there.

Kevin Patton (29:58):

But also in our lab activities and our case studies and other active learning opportunities, our quizzes, our tests, and/or our assignments, and really just about anything in the course. And I suggested that we encourage our students to use concrete images and models, drawing, or copying things into their notes as they think through solutions, as they are completing assignments or assessments. And well, everything else they do in our course. Now, there's a particular direction I want to take this discussion, and that direction is not going to surprise you if you're a regular listener to this podcast, that is how can this help us use imagery more effectively in our slides? Yes, I'm talking about slides again. How many episodes have I had about better ways to use slides in teaching? Well, this is another way. Okay?

Kevin Patton (31:01):

We all make and use slides. Right? Of course, we do. We do that in classic style lecturing. We make and use a lot of slides, but even if we don't do any traditional lecturing, we probably use slides for long or short video presentations in our course, in pre-lab introductions, in course orientations, in lab or lecture reviews when presenting case studies and recording demos and even outside the classroom when we're teaching our peers during a conference or workshop or speech, or even in a department meeting. No matter whether we're using one slide or using a deck of a hundred slides, if we're not using mostly images with very little text, then we're just not doing it right now. I've made a million, maybe a billion or maybe a gazillion slides in my four decades of teaching. And I'm also seen about that many slides used in various presentations, but part of what I do as faculty in the HAPI graduate program at Northeast College of Health Sciences is help A&P faculty each develop their own highly effective style of making teaching slides.

Kevin Patton (32:24):

So I've made a study of it myself so that I can be a helpful coach and all that coaching also means that I've been part of the process for a lot of the faculty that we're training and have been part of making not so great slides into engaging slides that really do help A&P students learn. And the key is what I just shared with you, a lot of images and not very much text. Before I move on to a couple of practical tips, I want to tell a story from

the olden days. Before we had PowerPoint or Google slides and the like, we had transparencies, these are letter sized plastic sheets that each have an image from the textbook or some other source printed on them with translucent ink. So you place those on a lighted platform with this little lens and mirror gizmo above it, that projects the image behind the beam, behind the presenter and onto a screen that the students can see.

Kevin Patton (33:36):

Now, often we would put up one transparency and talk about that image, and then we'd move on to the next transparency with the next image and continue our story talking about that image that the students can see projected behind me. Sometimes we'd use our pencil to point out things on the transparency or use a special marker to actually draw on the transparency or a sheet of acetate that was laid over the transparency, use a special marker to underline or circle or draw an arrow or outline the portion of an image. Maybe we'd write in a label or two or a definition or statement. Occasionally, we'd want to remind students of a previous concept, so we'd flip through the used transparencies on our desk and find the one from a few minutes ago or a few lectures ago and put it up there on the projector again so that students would have an actual image to reinforce the mental image in their mind's eye.

Kevin Patton (34:35):

Although I did that a lot and the students found it helpful, I got to admit, it was not easy putting all those transparencies back in their proper spot for the next class's lecture. I messed that up quite a bit. It was hilarious. My students thought it was hilarious. At least they were laughing at me. Oh man, they were laughing. Oh man, this paints a whole new picture of that memory. Oh, well. Anyway, the thing is in what seems like five minutes ago, we were all giving presentations that were mostly, if not entirely, images. Now in parallel, historically, with that method, and mostly at the larger universities, especially when we were teaching in giant lecture halls, which I did. I think some instructors were using a lot of Kodachrome or similar Kodachrome are similar photographic slides. Now I used the overhead transparencies, but a lot of my peers in that situation were using these photographic slides.

Kevin Patton (35:35):

You know, those 35 mm transparency photos that are mounted in little cardboard frames that a lot of people they took vacation pictures in that way. And then you arrange them in little carousel tray that was placed on a slide projector. Yeah, those kind of presentations using those little 35 millimeter slides. Those were mostly images too. At least the slides that we used for teaching. But you know, some of them did have texts, sometimes arranged as bullet points or definitions of terminology. But I think they were mostly used as title and subtitle slides to say, okay, now we're moving on a new topic or

a new subtopic to help students arrange in their own heads how this story was progressing. These were also used a lot for presentations in the world of business and it's that business meeting model upon which PowerPoint and its imitators were originally based.

Kevin Patton (36:32):

I don't think PowerPoint was originally intended for teaching so much as it was intended for business meetings. Now PowerPoint is great, and if nothing else, it has made it easy to make copies of slides that I could have so I don't have to keep pulling out previously use slides and risk getting them all mixed up like I used to always do. So if that's the only reason to use PowerPoint, it's still a good reason to use PowerPoint. Now, let me hover there for a moment and call your attention to this strategy that is using previously used images. Why don't many people do that? What I see happen a lot and by a lot, I mean, a lot, is that instructors will use the slides provided by the publisher or better slides they make using images provided by the publisher and they use each of them one time, exactly one time and often exactly in the order they appear in the textbook.

Kevin Patton (37:44):

Now what I think works way better for learning is this, number one, reconsider the order of events in the story that you're telling your students. You could be going in the same sequence as the textbook for every part of every chapter. But often we deviate from that a bit in our story. So our use of images needs to be switched around a little bit. The cool thing about PowerPoint is that there's a slide sorter mode that helps us see most of our slides all laid out on the screen and we can move our slides around to work out how our story will flow. Like, oh yeah, this seems good, no, no, no, no, let's move this over here. No, that's right. And go through it a few times just check on that flow and to change the flow until we finally have a story that the students are going to follow along with very easily.

Kevin Patton (38:48):

This strategy is called story boarding and I highly recommend doing that. I think our presentations flow better when we're really going full throttle with the techniques of storytelling, including this story boarding technique. Now, number two recommendation here is to revisit images when past concepts come up again. And we know they do, right? Very early in the course, we probably use an image of phosphorylation, maybe a simple diagram of energy input, allowing an inorganic phosphate to be added to ADP to form ATP. And then the phosphate group pops off the ATP with the release of that energy. Probably this whole thing is represented as a simple little cycle diagram, but doesn't that process come up a bunch of times as the course continues? Yeah, it does. Every time I turn around here's ATP again. And just because that image was from chapter two in the textbook or chapter three, or whenever first arose, that doesn't mean

that we can't use it again in chapter five in chapter six and chapter eight and chapter 10 and so on down the line.

Kevin Patton (40:09):

Repeating that visual representation helps all students retrieve their learned memories and helps their brains tie new information to old information. But as we recently discussed, it also really, really, really helps students who struggle with mentally visualizing things. It brings up an image that they may not be able to bring up, at least not very clearly, in their mind's eye. We're supporting those students and we're really supporting all students when we do that. And I'll be back with more in just a moment.

Digital Micro-Credentials

Kevin Patton (40:51):

I want to take a quick moment to remind you that you can earn a digital credential for listening to this or any episode of the podcast. Simply go to the show notes or the episode page and click the digital credential link or go to theAPprofessor.org/podlist. That's P-O-D-L-I-S-T. And click the link for the credential for this episode or any episode in that list. There's a short form to fill out and then you'll get your digital credential, which you can use as a printable certificate or as a digital badge or both. This helps you keep track of your independent individualized professional development activities. And that may come in handy when you're updating your CV or updating your LinkedIn profile, or when you're filling out your professional development plan documentation at your institution, or when you're applying for promotion, there're all kinds of reasons why having that information organized and handy is useful to you and to others.

Kevin Patton (42:03):

Besides that, it gives you experience with the emerging trend of digital micro credentials. You already listened to a hip podcast that's up to date with everything in teaching and in science. So why not be fully hip yourself and fully up to date yourself by earning digital credentials too, and becoming part of that world?

Single Field of View

Kevin Patton (42:33):

Now, I had been discussing reusing images from previous topics in our slides. To help students visualize things that they may have forgotten, to help reinforce that mental

image we hope they're recalling in their mind's eye. Likewise, I think it's a good practice to use the same image over the course of several back-to-back slides. For example, let's say you have an image that illustrates a four-step process, instead of trying to cram labels or bullets or other text for all four steps onto the same slide, why not divide it into four slides? Repeating the same image on each slide, we can either put the text for each step on a separate slide, or we could add each step from one slide to the next.

Kevin Patton (43:28):

Perhaps fading back the text carried over from the previous slide. That is, if it all fits. Now, this may be different from the way it's presented in the textbook, but the textbook has certain limits that you and I are free from. The biggest limit of a textbook is space, always textbooks are impossibly huge to start with. So we really don't want them doubling or tripling in size. No, we do not. So sometimes a bunch of steps are all piled into a single image. Done well, that actually works pretty good for learning by putting all the relevant information into one field of view. But sometimes when we're telling this story orally, it works better to separate out the text related to the steps into different slides in the sequence. Then have a review slide where you've put it all back together into one field of view similar to the typical textbook presentation.

Kevin Patton (44:38):

Another thing that I see that I think is a very weak strategy is to have a slide that is text only, perhaps a lot of text, and then follow that with a picture of what that text was describing. That is two different slides. One for text, it's jammed with text, and the next one has the image relating to that text on the previous slide. For example, if I'm describing the major features of the brain, I could list them all out in text on a slide, I could name and describe the brain stem and its principle elements and do the same with the diencephalon and the cerebellum and the cerebrum. So I have a whole bunch of text on that slide and it's not just the names of those regions, but some kind of description, even if it's a very short description, that ends up being quite a bit of text.

Kevin Patton (45:29):

But if a student has never studied brain anatomy, not really, maybe they've seen a brain, but if they've never studied brain anatomy, is this really going to help them? Even if they are hype-phantasmic, that is even if they have a very highly developed ability to mentally picture things, they may be conjuring up a very distorted image in their mind's eye if they've never actually seen these parts of the brain. A lot of faculty solve that problem by putting an image of the brain and its regions on the next slide. So, okay. I'll describe it. You're probably not picturing it correctly, but wa-ha here's the picture, huh? Or maybe they put the picture on the slide that comes before that listing of textual names and descriptions of brain regions.

Kevin Patton (46:22):

But I think that just doesn't work very well. I think it works way better to keep any text we use on the same slide as the image that illustrates that text so it's all in one field of view. Learning research tells us that the best way to present information is in a dual channel multimedia mode, that is using words and pictures together. If we read a lot of descriptive text on one slide, what are the odds? We're going to remember it when we get to the next slide with the image that illustrates that text. Huh? I'd say those are pretty low odds. Even if we're really good, even if we have with a so-called photographic memory, I still think we're going to have a hard time holding onto that, we just saw it for a brief moment really. And now we're expected to hold that in our head as we're onto the next slide and can't go back and see that text and double-check it and make sure we're right.

Kevin Patton (47:24):

And likewise, are we really going to hold that complex image of the brain in our mind's eye when we move to a slide that's full of text that describes that image? Yeah, no, no, we will not. It's not going to work putting it into the notes section that ends up on the handout either. Because looking back and forth between the handout and the slide isn't going to hold those two parts, the image and the text closely enough together for effective learning. Now here's something else to consider. Why not just skip the text part of it? If we're telling the story orally, it's there, it's present in real time as auditory information alongside the image. Do we really even need the text? That's sort of a third iteration, right? We have the picture, we have the auditory information, now we have the textual information. I don't think we need the text. At least not in many cases. Something I always do with my slide decks that you may want to consider doing too is to make one separate pass after you've gotten it all ready.

Kevin Patton (48:46):

And in this extra pass through all your slides, this extra review, I would look at only that aspect. Do I really need the text on this slide or the text on this other slide or the text on this other slide? I go all the way through and cut, cut, cut the text. And sometimes I'll add another image or two, especially those review images, those past images from previous chapters that I just mentioned a moment ago. So think about that. Picture that.

Staying Connected

Kevin Patton (49:27):

In this episode, I revisited the topic of pregnancy and abortion misconceptions by bringing up some feedback that I'd received and pointing out a mistake that I made in accidentally implying that only women can be pregnant. I also discussed the concept of the mind's eye or phantasia, and the fact that it's variable from one person to the next. I then took that a step further by considering things that we can do in our slides to make them work better for learning by considering how we help students mentally picture concepts.

Kevin Patton (50:09):

You want to stir things up with your colleagues? Then share this episode with them, by going to theAPprofessor.org/refer, to get a personalized share link that will get your friend all set up with this episode. If you don't see links to additional information about the topics in this episode in your podcast player, go to the show notes at the episode page at theAPprofessor.org/119. And while you're there, don't forget to get hip and claim your digital credential for listening to this episode. Maybe you have some feedback or a question you'd like to hear us explore on this podcast, or maybe a tip or a strategy that you'd like to share. You're invited to call in at the podcast hotline at 1-833-LION-DEN or 1833-546-6336, or send a recording or a written message to podcast at theAPprofessor.org. Well, I think that's enough for now. I'll see you down the road.

Aileen Park (51:24):

The A&P Professor is hosted by Dr. Kevin Patton. An award-winning professor and textbook author in human anatomy & physiology.

Kevin Patton (51:37):

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