Educating for Intellectual Virtues: Some Strategies and Resources for University Instructors

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Below I describe five classroom strategies for trying to foster students' growth in intellectual character virtues like curiosity, attentiveness, open-mindedness, intellectual autonomy, intellectual humility, and intellectual tenacity. These strategies are by no means exhaustive; indeed, I think they constitute a fairly minimal approach. I will attach several supporting documents as appendices (including a list of further readings).

1. Select a subset of intellectual virtues, formulate reasonable learning "objectives" relative to these virtues, and build them into your syllabus.

It is may be useful to focus on fostering a limited subset of intellectual virtues. The following three represent three different types of intellectual virtues and thus could be a good start: curiosity (motivational; gets students thinking and wondering); open-mindedness (forces a consideration of alternative perspectives or points of view); and intellectual tenacity (requires persistence, struggle, and rigorous engagement).

Once you've identified the virtues you plan to focus on, I recommend formulating corresponding objectives and building them into your syllabus. The objectives should be realistic. For each syllabus I design, I specify certain knowledge-based objectives (what students will learn), skill-based objectives (what skills will be developed or sharpened), and character-based objectives. The latter can be more or less specific. My character-based objectives (which could easily be improved upon) tend to be something like:

- First, students will possess a firm understanding of what intellectual virtues are, how they differ from related cognitive and moral strengths, and why they are valuable both in themselves and as a means to successful learning and living.
- Second, students will possess an honest and detailed understanding of their own intellectual character relative to virtues X, Y, and Z, and will begin to "take ownership" of their strengths and weaknesses in these areas.
- Third, students will undertake some concrete and intentional efforts aimed at growing in X, Y, Z.

Obviously, if these are your objectives, you'll want to employ various strategies to help students achieve them. The strategies listed below could serve this purpose.

2. During the first class period or two, provide students with an overview of what intellectual virtues are, how they differ from related cognitive and moral strengths, and why they are valuable both in themselves and as a means to successful learning and living.
I begin all my courses (except at the graduate level) with a mini-unit (maybe one hour long) on the above content. See Appendix A for some of the materials I use in this context. I often lead students into this unit with a fairly open-ended discussion about the aims and goals of education (Why is education valuable? What are the proper aims or goals of teaching and learning? Is formal education really worth it given what it costs and the fact that much of the relevant knowledge can be acquired for free online?). This inevitably generates the suggestion that at least part of why education matters is that it is personally formative in particular, that it's about shaping students as thinkers or learners. In other words, education is—or should be—about fostering intellectual character virtues, which are simply the personal qualities or character traits of a good thinker, learner, or inquirer.

The main purpose of this unit is to familiarize students with the concepts and terminology associated with intellectual virtues. This provides the instructor and students with a common virtue-based vocabulary and sets the stage for some of the other strategies below.


It is important that students begin to apply their new knowledge of intellectual virtues to their own self-understanding. Specifically, they need to be aware of and to "own" their intellectual character strengths and weaknesses.

To this end, I have them do a brief self-reflection/self-assessment exercise at the very beginning of the semester (often as homework). I try to make the questions very specific, asking them to cite examples, and so on. I also make sure I respect their privacy about these things (not asking them to share with other students unless they want to). I have found that this—together with modeling an acknowledgment of my own intellectual character flaws and trying to create a trusting and supportive classroom environment—goes a significant way toward combating the kind of defenses that might otherwise block a student's attempts at honest self-assessment. (And, of course, honest self-assessment is very much a matter of degree!) See Appendix B for some more and less sophisticated self-assessments (the less sophisticated material is mine; the other material is from one of several public school teachers I've been working with on some of these ideas).

I then try to follow up this initial self-assessment with at least two additional reflection exercises over the course of the semester, each of which of which builds on the one before it. So, for instance, I might begin by asking my students to identify some of their intellectual character strengths and weaknesses and to reflect on the consequences of these strengths and weaknesses in their lives as students and beyond. I might also ask them to identify one or two concrete steps or "disciplines" they could undertake to work on their weaknesses and to commit to practicing these disciplines. A second assignment might ask them to report on whether they did in fact take these steps. If so, what was the effect, if any? (Again, I ask them to be very specific and to illustrate with examples.) If not (which is not at all unlikely!), I invite them to think seriously about why not: what were the emotional or cognitive obstacles? What got in the way? I might then ask them to identify a more appropriate set of exercises and to commit to practicing these. A third assignment would take them through the same sort of reflection and invite them to specify some concrete
longer term goals related to their intellectual character development and to identify some specific strategies aimed at achieving these goals.

As this suggests, the goal of these exercises, beyond self-knowledge, is to give students experience with thoughtful and intentional reflection and effort at intellectual self-improvement.

4. Give students frequent opportunities to practice intellectual virtues.

Intellectual virtues, like all character virtues, arise largely through repetition and practice. Therefore, if we want our students to grow in virtues X, Y, and Z, we must build opportunities to practice X, Y, and Z into our classes.

This might involve designing and overseeing certain in-class activities: e.g. activities aimed at getting students to puzzle, wonder, and ask good questions (curiosity); or activities aimed at getting them to identify salient details (attention). It can also involve out-of-class activities: e.g. a paper or other assignment that requires them to argue vigorously for a position they reject (open-mindedness); or an assignment designed to rigorously challenge students or to provoke intellectual struggle (intellectual tenacity and intellectual humility).

The underlying idea here is that each intellectual virtue X has a (more or less) unique set of characteristic actions or behaviors such that to foster growth in X is (in part) to give students frequent opportunities to practice the actions or behaviors characteristic of X. (E.g. curiosity is about asking insightful and thoughtful questions, attentiveness is about noting critical details, open-mindedness is about perspective-switching, intellectual tenacity is about persisting through struggle, and intellectual humility is about knowing and accepting one’s intellectual limits.)

Another critical way of giving students opportunities to practice intellectual virtues is to “teach for deep understanding.” Intellectual virtues aim at deep understanding. An intellectually virtuous person is not primarily interested in the short-term memorization of isolated facts; nor is she content with superficial or cursory knowledge of an important subject matter. Instead, she aims at firm personal explanatory understanding. For this reason, students should be called upon—in class and on written assignments and exams—to pursue and demonstrate such understanding.

I’ve attempted to do this by being very clear with my students that they must always explain their views and answers in careful and thorough detail and use examples to illustrate. I tell them that they will lose significant points to the extent that their answers on exams or explanations in their papers are answers or explanations that could’ve been given by a “mere regurgitator,” that is, by someone who is simply restating the material as it was presented in class. Again, they must clearly demonstrate a firm personal understanding of the relevant material.

5. Build intellectual virtue concepts and standards into assessments.
Assessing students’ possession of or growth in intellectual virtues is, of course, a very significant and complex challenge, particularly because intellectual virtues are largely “inward” traits (they’re partly a matter of attitude, feeling, motivation, etc.). But this doesn’t mean that some meaningful and worthwhile assessment can’t take place. In particular, we can measure the extent to which students engage in the activities or behaviors characteristic of intellectual virtues (this is a necessary, albeit not a sufficient, condition for their possession of intellectual virtues). In fact, this should be the natural thing to do if we have, as the previous strategy commends, designed classroom activities, assignments, and the like in ways that require the exercise of intellectual virtues. So, for instance, if particular assignment is designed to give students an opportunity to practice open-mindedness by requiring them to perspective-switch, they should be evaluated on the basis of how well they do this. Likewise for assignments that requires students to, say, generate thoughtful and insightful questions (curiosity) or recognize crucial details (attentiveness).

Conclusion

Do these strategies work? Are they effective? This all depends, of course, on how one thinks about success. If one’s standard of success is that all or most students must emerge from one’s class at the end of the semester as paragons of curiosity, open-mindedness, and intellectual tenacity, then I think they are unlikely to work. But this, of course, is an overly high standard. I think a better way to address the underlying (legitimate) question involves keeping in mind a couple of important facts about intellectual virtues. First, virtue-possession is a matter of degree. Very few of us possess any intellectual virtue (or vice) in its purest or most ideal form; instead, we are more or less open-minded, intellectually honest, intellectually tenacious, and the like. Second, intellectual virtues have different dimensions: they are partly a matter of ability, partly a matter of judgment (a sense of when to exercise which traits), and partly a matter of motivation. It is entirely plausible to think that we are able to have an impact along some of these dimensions more than others (e.g., through practice we can help students develop certain virtue-relevant abilities or skills; however, it may be more challenging, especially within a single semester, to have a major impact on their intellectual motivation). Accordingly, I think the question to ask is whether we are capable of making meaningful and worthwhile progress in our attempts to educate for intellectual virtues. My experience suggests that we can. And, in any case, I’ve found that teaching in these ways and with this perspective is more enjoyable and rewarding. Finally, please bear in mind that the strategies listed above are but the tip of the iceberg. There is much more that individual educators—not to mention administrators and educational institutions at large—can do to foster growth in intellectual virtues.
Appendix A:
Introductory Materials
INTELLECTUAL VIRTUES

Intellectual virtues are not the same thing as intelligence, IQ, or any other (largely) hardwired cognitive capacity or ability. Rather, they are the personal qualities or character traits of a good thinker, learner, or inquirer. They include curiosity, intellectual humility, intellectual autonomy, attentiveness, intellectual carefulness, open-mindedness, intellectual tenacity, and more.

One helpful way of understanding intellectual virtues is in terms of their usefulness for addressing challenges that arise in the context of learning—for example, basic motivational challenges, challenges related to staying sufficiently focused and attentive, challenges related to learning new and foreign material, challenges related to persevering with a difficult task, etc. The classification below illustrates how different “clusters” or groups of intellectual virtues are helpful for overcoming these different challenges.

<table>
<thead>
<tr>
<th>Initial motivation</th>
<th>Cognitive Focus</th>
<th>Consistency</th>
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<tbody>
<tr>
<td>curiosity, wonder, reflectiveness</td>
<td>attentiveness, intellectual carefulness, intellectual thoroughness</td>
<td>fair-mindedness, open-mindedness, impartiality</td>
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<tr>
<td><strong>Self-awareness</strong></td>
<td><strong>Cognitive “expansion”</strong></td>
<td><strong>Pressing on</strong></td>
</tr>
<tr>
<td>intellectual honesty, intellectual integrity, intellectual humility</td>
<td>imaginativeness, creativity, intellectual adaptability</td>
<td>Intellectual patience, intellectual tenacity, intellectual perseverance</td>
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Intellectual Virtues Reflection Exercise #1

1. What do you want from your education at LMU? Why? Try not to limit your answer to just one or two things. And try to be as thoughtful and reflective as possible.

2. How do you feel about learning? What do you most like about it? What do you most dislike? How could learning/education change so that you’d have better feelings about it (i.e. like it more)? How could you change so that you’d have better feelings about it (i.e. like it more)?

3. Name the intellectual virtue that you think is most important. What feelings and actions are characteristic of this virtue? Be specific.
Appendix B:
Self-Assessment and Self-Reflection Materials
Intellectual Virtues Self-Reflection Exercise #2

1. Identify two intellectual virtues which you think you possess at least to some extent. How do these virtues serve you in your life as a student? Try to be as specific as possible, using two or three examples to illustrate.

2. Identify two intellectual virtues which you think you lack. Why do you think you lack these qualities? Be as specific as possible. How would your life as a student or "learner" look different if you possessed these virtues? Again, be as specific as possible.

3. Identify three specific and realistic steps you could take today to facilitate growth in one or two virtues which you think are important but which you believe you presently lack (or are weak in). Can you commit to taking these steps?
Intellectual Virtues Self-Reflection Exercise #3

1. Having learned more and further reflected on matters of intellectual character, which intellectual virtue or two do you most struggle to practice? How has this been evident in your life as a student since the previous self-reflection exercise? Be very specific, illustrating with examples wherever possible.

2. Did you take the steps you identified in the previous self-reflection exercise to improve the quality of your intellectual character. If so, what was the result? Be very specific. What, if anything, did you learn from taking these steps? If you did not take the steps, what’s your best guess as to why you didn’t? And why do you think explains these obstacles? Again, please try to be honest with yourself and very specific.

3. What are some other steps you might take to facilitate growth in virtues which you presently lack? Why do you think these will be effective? Can you commit to taking them?
Intellectual Virtues Self-Reflection Exercise #4

1. Which two intellectual virtues have you used in this class? How have they been useful?

2. Which two intellectual virtues have you needed but not used or not used enough? How would your performance (not necessarily your grade) have been different if you had used these traits?

3. Which two intellectual virtues would most like your mind to be characterized by when you are, say, 30 or 40 years old? Why?
Intellectual Character

What is the purpose of education? If you haven’t already asked yourself this question, consider it now. Here are my thoughts:

First, you come to meet people, make friends and learn how to function in a group of people; some of whom you get along with, and some of whom you don’t. You also learn how to relate to authority and the consequences of not submitting to it, and the benefits of being obedient. These things are very important.

Second, you come to get ready for a job. We help you with this by nurturing good work habits and helping you know enough so you can pass your classes, get that diploma and move on to whatever you want to do after high school.

Last, you come to learn how to think well. You make thousands of decisions each day, and each one could potentially change your life. If you are to live a good life, you must make wise choices. And in order to do this, you must develop good thinking skills. This is called your Intellectual Character: a person’s attitude, thoughts and feelings about learning and thinking.

Having good intellectual character will help you do well in school, but it will also make you a better person, and I believe it will actually help you enjoy your life more!

Intellectual Character Traits

Here are nine good character traits (called Virtues) and their corresponding bad traits (called Vices).

<table>
<thead>
<tr>
<th>Intellectual Virtue</th>
<th>Intellectual Vice</th>
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<tbody>
<tr>
<td><strong>Curiosity:</strong> wonders, ponders, and asks why; has a thirst for understanding.</td>
<td><strong>Apathy:</strong> has very little interest in new information or ideas</td>
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<tr>
<td><strong>Humility:</strong> an awareness of one’s own intellectual limits; a low concern with academic status and pecking order; a willingness to trust and depend on others in a learning context.</td>
<td><strong>Pride:</strong> a self-inflated view of one’s own intellect; a “know-it-all” who is not willing to admit his/her own limitations and ask for help in learning or understanding.</td>
</tr>
<tr>
<td><strong>Autonomy:</strong> a capacity for active, self-directed thinking; an ability to think and reason for oneself.</td>
<td><strong>Dependence:</strong> is unable to learn new things on his/her own; accepts the views and opinions of others without much analysis.</td>
</tr>
<tr>
<td><strong>Attentiveness:</strong> keeps focused and on task; zeroes in on important details of appearance and meaning.</td>
<td><strong>Negligence:</strong> easily distracted and fails to complete tasks or seek deeper understanding.</td>
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<tr>
<td><strong>Carefulness:</strong> an awareness of and sensitivity to the requirements of good thinking and learning; quick to note and avoid pitfalls and mistakes.</td>
<td><strong>Carelessness:</strong> unperceptive of inaccurate or misleading information; naïve and easily lead astray.</td>
</tr>
<tr>
<td><strong>Thoroughness:</strong> seeks and provides deeper meaning and explanations; not content with appearances or easy answers.</td>
<td><strong>Shallowness:</strong> accepts simple explanations and is satisfied with elementary understanding and meaning.</td>
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I think that part of the reason you come to school and become educated, is to develop Intellectual Virtues. If you look at the list, you will no doubt see that these are simply good things to be. An intellectually virtuous person is a good person, one who people enjoy being around, and one who any boss would want working for them. So, I hope you will accept this challenge: to become an intellectually virtuous person!

**Discussion Questions**

*Answer the following questions. Be prepared to talk about your answers.*

1. What do you think is/are the purpose(s) of education?

2. What is “Intellectual Character”?

3. What is the difference between an intellectual “virtue” and an intellectual “vice”?

4. Which virtue do you think is most important? Why?

5. Which vice do you think is the most dangerous? Why?

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Your Intellectual Character Profile

In order to develop your intellectual character, we must first determine what your strengths and weaknesses are. Below is a quick self-assessment. Read each set of statements. If the description fits you, then write a “1” on the line provided. If the description doesn’t fit you, write a “0”.

<table>
<thead>
<tr>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
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</thead>
<tbody>
<tr>
<td>_ I enjoy learning about new things.</td>
<td>_ There are some subjects that I don’t know that much about.</td>
<td>_ I like to try things for myself before asking for help.</td>
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<tr>
<td>_ I sometimes spend time on the computer reading about my favorite things.</td>
<td>_ Having the highest grade in the class is not important to me.</td>
<td>_ I sometimes come up with new ideas on my own.</td>
</tr>
<tr>
<td>_ I sometimes wonder how things work or why things are the way they are.</td>
<td>_ If I don’t understand something, I will usually ask someone for help.</td>
<td>_ I can disagree with someone and still be friends with them.</td>
</tr>
<tr>
<td>_ I enjoy watching TV channels like Discovery, History and Animal Planet.</td>
<td>_ It’s okay with me that some people know more than I do.</td>
<td>_ I sometimes go on-line to find out more about my favorite subjects.</td>
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<tr>
<td>TOTAL</td>
<td>TOTAL</td>
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<thead>
<tr>
<th>Set 4</th>
<th>Set 5</th>
<th>Set 6</th>
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<tr>
<td>_ It is easy for me to pay attention during class.</td>
<td>_ I like to check the facts when someone tells me something.</td>
<td>_ I double-check my work before turning it in.</td>
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<tr>
<td>_ I can usually remember the details of a lesson.</td>
<td>_ I don’t believe things just because someone tells me about them.</td>
<td>_ It bothers me when I see a spelling mistake.</td>
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<tr>
<td>_ I sometimes spend a really long time working on one task.</td>
<td>_ I check my facts before disseminating information.</td>
<td>_ I like to know all the details of the things I’m interested in.</td>
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<tr>
<td>_ I can usually tell when something is out of order, or missing.</td>
<td>_ I avoid making decisions when I’m feeling very emotional.</td>
<td>_ I have read all the books in a series.</td>
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<td>TOTAL</td>
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<tr>
<th>Set 7</th>
<th>Set 8</th>
<th>Set 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>_ I can easily put myself in someone else’s shoes.</td>
<td>_ I usually participate in class discussions.</td>
<td>_ I sometimes stay up late to finish my homework.</td>
</tr>
<tr>
<td>_ Even if I disagree with someone, I am willing to hear their opinion</td>
<td>_ I sometimes yell out an answer during class.</td>
<td>_ When a math problem is too difficult, I will keep working on it until I get it.</td>
</tr>
<tr>
<td>_ I have changed my mind about something, after hearing someone’s explanation</td>
<td>_ If I yell out a wrong answer, I might be embarrassed for a second, but I won’t worry about it.</td>
<td>_ I have worked really hard to achieve something I wanted to do.</td>
</tr>
<tr>
<td>_ I think that it is important to give someone a chance to share their viewpoint.</td>
<td>_ I will do my very best in a class, even if it is difficult or I don’t like it.</td>
<td>_ I can think of a time when I did what “needed” to do instead of what I “wanted” to do.</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
<td>TOTAL</td>
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Now go back and add up the totals for each set.

Transfer the total for each set to the list below. This will give you the Score for each Virtue:

Total for Set 1 ___ = Score for Curiosity
Total for Set 2 ___ = Score for Humility
Total for Set 3 ___ = Score for Independence
Total for Set 4 ___ = Score for Attentiveness
Total for Set 5 ___ = Score for Carefulness

Total for Set 6 ___ = Score for Thoroughness
Total for Set 7 ___ = Score for Open-Mindedness
Total for Set 8 ___ = Score for Courage
Total for Set 9 ___ = Score for Perseverance

Now use your Scores to make a bar graph; this is your Intellectual Character Profile!

Discussion Questions
Answer the following questions. Be prepared to talk about your answers.
1. Which of the virtues are your strengths? (Scores of 3 or 4)

2. Which of the virtues do you need to develop? (Scores of 0 - 2)

3. Do any of your strengths surprise you? Which one(s)? Why?

4. Do any of your weaknesses surprise you? Which one(s)? Why?

5. Looking back at your life so far, how have your strengths helped you?

6. Looking back at your life so far, how have your weaknesses hurt you?

7. Which virtue are you going to concentrate on improving? What steps will you take to help you do that?

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Appendix C: 
A Few Resources for Further Reading

A recent *New York Times* bestseller that does a nice job of drawing together recent research from an array of disciplines in support of the claim that intellectual character is crucial to success inside and outside of the classroom is Paul Tough’s *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character* (Houghton Mifflin Harcourt, 2012). If you’re interested in character education more broadly, I would also recommend Scott Selber’s recent book *Character Compass: How Powerful School Culture Can Point Students Toward Success* (Harvard Education, 2012).

For more on the concept of intellectual character or intellectual virtues, I recommend:


For more on why we should educate for growth intellectual virtues and for corresponding practical strategies and principles, I recommend:


Finally, stay tuned to [http://intellectualvirtues.org](http://intellectualvirtues.org) for more resources along these lines in the months and years to come.