

<u>Specific Ways in Which a Classical Education Differs from a</u> <u>Conventional Education, with Accompanying Explanations</u>

Introduction – A Not-So-Practical Bit

The following is a brief and by no means exhaustive summary of the distinct nature and value of a classical education at the more theoretical level, which needs to be said to help give proper context to the differences that follow:

I will begin with some caveats. First, for the sake of (relative) brevity, I am always speaking in a generalized way. The reality of schools in America is obviously more complicated than two neatly defined and united camps called "classical" and "conventional." I rely on the simple binary because I think it still reveals important truths present in general trends and ways of thinking in education. Second, the following is only taken to be applicable to K-12 schooling. The question of the University is different, since at least the classical model was always seen as a preparation for a university education. Third, I speak mainly simply of "classical" education, but at times I make explicit connection to the Catholic Faith, or a "classical Catholic" education, since I hold that only in the Catholic tradition is the classical model truly fulfilled and perfected. Fourth, the differences listed are by no means meant to be exhaustive, but, rather, representative of the a distinctly classical, liberal-arts approach.

A classical education, rooted in the long tradition of western education and built on the foundation of the 7 liberal arts, has as its end a philosophical way of thinking, meaning a way of seeing and understanding that begins in wonder and pursues the truth for its own sake – in short, wisdom. Here, "classical" is taken to be synonymous with "liberal arts." A conventional education, the sort one would find in most schools in the U.S. today, is typically the means of a practical purpose, seen as useful and effective insofar as it produces good citizens, or makes students financially successfully, or perhaps just gives them a sensation of fulfillment. Whereas there are certainly a number of ways in which a conventional and classical school could be similar or use similar ways of speaking about themselves, it is important to keep in mind that the rationale for why each exists remains fundamentally distinct, and it is this distinction that underlies the different culture, focus, emphasis, and pursuits of the respective school models.

Now, when we speak of authentically Catholic schools, whether conventional or classical, we certainly can often see additional similarities in focus and ways of speaking. For instance, both might speak often of integrating the Faith in the classroom or even of forming students in

the Catholic tradition. And, indeed, a classical education, as borne out in its historical development, needs the Catholic Faith to, among other things, truly *form* students in salvific truth, such that what they learn and how they think becomes an incarnated reality, a Catholic way of living and seeing. In the differences below, I speak of the "conventional model" primarily with reference to its use in public schooling, recognizing, however, that Catholic schools have, at least in the last century or so, often more or less followed the public schooling model.

Thus, even among Catholic schools, the important distinction between classical and conventional schools generally holds true. Though the Faith can indeed be a source of integration among subjects, it can only be that when the subjects are taught in such a way 1) that rationally forms a coherent whole; 2) that is developed and handed on as a living tradition; and 3) that is therefore in accord with the natural ways in which the human mind attains to truth, goodness, and beauty. This is indeed what the classical or liberal arts education is set up to do. The conventional model, even when made Catholic, tends to miss these three things because it 1) has difficulty meaningfully accounting for how subjects are truly integrated (beyond "cross-curricular connections", a buzz phrase that often means little more than finding any old way a topic in one subject relates to a topic in a different subject); 2) struggles to maintain a sense of a coherent heritage or tradition beyond the truths of Divine Revelation and the natural law (if these, even); 3) is committed to contemporary theories of knowledge and learning that do not always fit well with the actual, natural progression of human knowledge and experience.

The Manner of Differing

-A classical education can differ in one or more of the following ways:

- The way a given subject is taught and learned, even if the content of what is taught appears to be much the same
- The ways that subjects are related and, ultimately, integrated
- The content of a subject
- Having a different subject entirely

Twelve Differences between a Classical and Conventional Approach to Education

- 1. A classical model sees the gymnastic and musical modes of engaging reality as integral parts of its curriculum. A conventional model may also prize these modes, but it lacks a means of true integration, often leaving them either as "extracurriculars" or as clever teaching tools lacking a clear significance beyond their immediate, temporary impact.
- A classical model emphasizes memorization by placing it at the center of education in the "grammar stage" – roughly grades K-5. The conventional model tends to avoid memorization, negatively associating it with "rote learning."

- 3. A classical model emphasizes recitation, poetry, and narration, at all levels to develop the students' "ear" and their understanding of the western heritage through stories. A conventional model tends to limit these in the interest of not over-burdening students with texts deemed "too difficult" or with a mode of learning deemed too demanding of their verbal abilities.
- 4. A classical model emphasizes older, "classic" literature, not because it's set on a specific "canon" of "great books," but because among older literature can be found works that simultaneously immerse students in a western heritage and in a beautiful story. A conventional model is much more concerned with making literature relevant to the students and their contemporary experience.
- 5. A classical model emphasizes grammar, both as a distinct subject and as a broader approach to any subject in the lower grades, integrated with a gymnastic and musical formation. A conventional model has increasingly seen grammar as useless and dispensable.
- 6. In a classical model, Aristotelian logic is a distinct course of study, training the students in the pursuit of universal truth. In a conventional model, this logic appears to be either obsolete or unworkable in an education that avoids questions of universal truth.
- 7. Less concerned for measurable results, the classical model leans more heavily on questions and discussion rather than "learning objectives" and standards. The conventional model also uses discussion, but it relies more heavily on objectively measurable student output.
- 8. A classical model studies history instead of social studies, with the goal of immersing students in a meaningful story of western culture, a story that includes geography, economics, politics, etc. A conventional model tends to favor studying social studies so as to diversify the ways in which students can study human society, mostly with a focus on contemporary society.
- 9. A classical model often studies western civilization instead of world history, especially since the latter presents a coherent heritage and field of study, whereas the latter does not. A conventional model, sensitive to cultural diversity and increasingly suspicious of and hostile towards the "western heritage," has succeeded in pushing out courses in "western civilization" from most schools.
- 10. A classical model is aware of the difference surrounding older and newer uses of the term "science" and the significance of retaining the older meaning in order to avoid a significant narrowing of what counts as "scientific knowledge." A conventional model

has long been influenced by the dominance of modern science and mathematics over claims to knowledge, which has led to an increasing confusion over what knowledge is.

- 11. A classical model does not accept the conventional model's recent project to make "STEM" subjects the heart of education. The classical approach is not opposed to STEM, but it approaches them as part of the Trivium and Quadrivium (the 7 liberal arts), that is, with a goal to forming a philosophical habit of thinking, rather than thinking focused on production and manipulation.
- 12. The classical model, in light of its goals, handles technology in a measured, careful manner in favor of student experiences that are interpersonal and in direct contact with reality. The conventional model tends to pride itself on constant technological innovation, with "more technology" increasingly associated with educational progress.

Longer Explanations for Each Difference

1. The Gymnastic and Musical as Integral Aspects of the Curriculum

A "gymnastic" formation, drawing from its original meaning in Greek education, means a complete formation of the body, its coordination and capacities. A "musical" formation involves anything inspired by the "Muses" of Greek Mythology, the sources of inspiration for poetry, music, drama, literature, and the fine arts. A conventional education certainly contains both the gymnastic and musical, and many schools even make a point of emphasizing them. The key in the difference here is the word "integral," which means not just that these are "interconnected" (though they are), but that they form an organic whole with the other aspects of a classical curriculum. To be "integrated" means to have the source of unity coming from within, much like a soul providing unity and direction to a body. A classical model sees these as essential steps in pursuing its end of formation in wisdom, steps that are also necessarily tied to the other, more intellectual subjects.

The gymnastic formation gives students a bodily experience of harmony. It is a training in how to discipline our body, coordinate its movements, and shape its comportment in relation to other people's bodies. This fits well with a musical formation, which shapes the imagination, affections, and inner "ear" for harmony, each of which are simultaneously bodily and spiritual experiences in us. Indeed, both the gymnastic and musical are integrated on the basis of the integration of the human body and soul. We are not simply minds trapped in machine-like bodies; rather, so much of our interior life takes place in the "middle" region of our nature, perhaps best summed up in the term "the heart." A conventional education lacking a coherent vision of the human person, also lacks the means of integrating physical and artistic endeavor. The classical model, especially as enlightened by the Catholic Faith, accounts for this integration in the nature of the human person. This entails not just a more robust P.E. program or more art classes in a week, but that every subject is approached, especially in the early stages of education, in a gymnastic and musical way, coupled with the students' grammar formation, of which we will speak later on.

2. Emphasis on Memorization

In contemporary educational theory, memorization is often associated with "rote learning," meaning that students are viewed as passive subjects merely receiving knowledge and regurgitating for a test. Interestingly, you would be hard-pressed to find anyone today who actually promoted such an approach to education. Indeed, everyone in education – in conventional and classical camps alike – wants to claim that his or her version/sub-version is the key to avoiding this. Furthermore, everyone also understands that memory is important in learning.

So the real difference here isn't that the classical is all about "good ol'-fashioned" learning by rote or that the classical movement is the only one that has recognized the fundamental importance of memory; rather, the classical sees the central importance, in the "Grammar stage" especially, of memorizing lists, definitions, poems, etc., not because that work is itself "learning," but because it is a prerequisite to learning. Insofar as "rote learning" has become a strawman to take down in contemporary educational parlance, it seems to ignore the distinction between the memorizing itself being the learning, and the memorizing being the preparation for learning, the creation of a storehouse of meanings, beautiful phrases, and words that form building blocks for later, more developed thinking.

Furthermore, memorization in classical education is typically much more extensive and demanding than in conventional approaches, which often are focused on finding as many shortcuts as possible, whether by skipping right to reasoning, or by making the burdens of recall as light as possible. The classical approach is definitely more willing to allow students to "suffer" heavier burdens of recall and seemingly more boring, less engaging content matter. Then again, the perception that memorizing many lists, definitions, or poems is burdensome and tiresome is a decidedly adult one that forgets the delight that children's minds take in precisely these things.

3. Emphasis on Recitation, Poetry, and Narration

Recitation, poetry, and narration and story-telling are key components of a musical formation and the formation of memory. Reciting a speech or poem and re-telling stories are ancient ways – across cultures – of passing on a heritage, and this fact gives evidence

to its fundamental role in human learning. These ways immerse students in a word-rich course of study, in keeping with the classical model's emphasis on the spoken and written word, on developing an "ear" for and dexterity with beautiful, complex language. These ways also immerse students in the art and world of stories, which is a central way in which humans engage with reality in passing on a cultural heritage. Finally, these ways are at the service of any subject a student might pursue, since they hone their ability to speak from memory, to think in a connected and coherent way, and to organize thought for speaking and writing.

Poetry is a particularly powerful way to form the students' minds in beauty. Poetry is the music of the spoken and written word; it is the mode of the seer, the prophet, and the epic, and thus is fundamental both to religious literature and the oral traditions of ancient cultures. Listening to, memorizing, and reciting musical, well-crafted poems, stories, essays, and speeches trains the ear for the cadences of language, gives students a storehouse of phrases from which to draw, and points them to the worthwhile ideas and images that those phrases elicit.

A conventional model tends to be reticent to over-burden student memories or demand too much of the students' listening and attention. In the interest of "accommodating" different learning styles, alternative modes of engaging with texts are used, such as quizzes, study guides, games, pictures, videos, or visual charts. We have already explained how the classical model in fact integrates the gymnastic and musical in its curriculum. Certainly, however, engaging in poetry and other writings with well-crafted language can be demanding on the student's comprehension. Fearful of students that are bored or disengaged, conventional education tends to shy away from introducing students to language that is deemed to be too high above their reading level. The classical model, on the other hand, recognizes the central role of the teacher in making difficult, unfamiliar texts meaningful for students. Furthermore, it recognizes that students need not have a strong grasp of the language they encounter right away. The classical course of study proceeds slowly, patient with partial understanding, so long as the language is precise and beautiful. The grounding in this kind of language and literature will provide a bedrock for later, more developed thinking. This is a practical way in which the classical model really is based on wonder, rather than immediate comprehension.

4. Emphasis on Older, "Classic" Literature

Since a classical education's reason for existing is to pass on the ideas of western culture, it makes perfect sense why it would have a predilection for older literature, at least insofar as that literature represents a living connection with the western, Catholic heritage. There are certainly many good books written more recently that can also help to preserve this connection, but the classical movement is sensitive to the fact that the

modernist and post-modernist projects of the last 100+ years have both worked to develop (in different ways, certainly) a rift between modernity and pre-modernity and even animosity towards anything that smacks of a more "traditional" way of living and seeing.

This has certainly impacted literature. One way is that we find it increasingly more difficult to genuinely empathize, love, and see with older ways of seeing and living in the West, and so stories that depict, say, a medieval culture will almost inevitably present it with a modern twist or commentary, as if the thing had to be somewhat excused, like our odd-ball relative towards whom we might have some affection but about whom we have a certain embarrassment. Older literature can still transport us to a western past without having to insert a modern voice or message. And the classical model wants to recover a genuine love of the past, though one, certainly, that is realistic and not merely nostalgic.

Sometimes the classical model has been equated with the "Great Books" movement, such that it is perceived to be tied to "the canon," the prescribed list of must-reads in order to be an "educated" person. While it is certainly true that particular books are important for their impact on western culture, that is not the only criteria for choosing. Literature not only preserves a culture's central stories, it also, as an art, can manifest something beautiful and insightful about reality and human nature. Its beauty and insights in turn are formative of the student's intellect, affections, and imagination.

A classical education seeks out books that can reveal human nature in a coherent and beautiful heritage. This means that, unlike in many conventional settings, literature is not typically chosen for its immediate "relevance" or appeal to student taste, but rather for something deeper and more lasting, and thus, ultimately, more "relevant" and fulfilling in the long run. Recently, there has been a big push in conventional education to have students read socially relevant literature, stories that serve as vehicles for various social justice causes or trending social movements. The classical model tends to avoid this type of literature, since, among other reasons, it runs contrary to the nature and purpose of literature. It is certainly true that literature can speak to moral issues in profound ways, but it is *first* and *foremost* a form of story-telling, not didactic moralism, and it is as story-telling that literature has made an enduring impact in human history.

5. Emphasis on Grammar, Integrated with the Musical and Gymnastic

It is becoming fashionable in modern education circles, which are typically highly influential on conventional schools, to jettison grammar entirely, since it is deemed both arbitrary and useless. It is considered arbitrary, since (to put things simply) language's connection to reality and logic is seen as purely arbitrary, making grammar's structure fundamentally a cultural product, rather than something that reveals a universal meaning.

It is considered useless because, among other reasons, it is deemed entirely unhelpful for developing thought or writing.

Grammar happens to be the first step of the Trivium, and the reason for this is that it introduces young minds to the basic building blocks of their subjects. It is both a subject in itself and a way of approaching any subject in the "grammar stage" (K-5). Once students are able to conceptualize and speak about what they experience in reality, they are ready to learn how to properly use language and speak and think about the various basic rules and meanings of nature study, mathematics, history, etc. This stage of formation is, as we have already seen, also deeply musical and gymnastic. They are not only learning the basics of language and various subjects, but they are also being formed in the love and beauty of what is true, worthwhile, and harmonious, a formation that Edmund Burke famously termed the "moral imagination." That formation is simultaneously in the body, the intellect, and the heart.

This grammatical, musical, and gymnastic foundation naturally leads into logic, since learning the basic structures of language and reality forms the basis for having a structured and ordered habit of thinking. But this goal does not fit well with the emphases in the conventional approach on individual expression, freedom of thought, endless exploration, and self-discovery. Indeed, in the conventional context, grammar and logic can seem to be merely impositions limiting a student's development. The classical approach understands, however, that it is precisely through limited structures that students learn how to think and write well, ask good questions, and truly see reality and themselves in an open-minded and freeing way.

6. Logic as a Distinct Course of Study

The classical model embraces Aristotelian logic, which is distinct from Boolean logic, a more abstract, mathematically-based logic first introduced by George Boole in the middle of the 19th century. The logic that Aristotle proposed was one rooted, not in mathematical variables, but in the basic human experience, perception, and understanding of reality, i.e., a set of "common sense" principles, such as that beings exist, they are what they are, and that we can know them through our senses.

The end of logic is the attainment of truth. It is not merely a mental game or puzzle. For this reason, it is difficult for a secular conventional model to have a meaningful course in logic. In past decades, we might have accounted for this by pointing to its committed agnosticism in questions of universal truth. Now, it is increasingly due to the fact that logic itself is perceived to be yet another cultural product, typical of the western project to impose its values and ways of thinking on non-western cultures. The very principles of reality and logic itself are thus in question.

In a Catholic conventional school model, these issues can be avoided, though it is still uncommon to see logic taught in a grade- or high-school context, and rare indeed to find it as a required course of study. Part of the reason for this is likely simple inertia and an already-crowded slate of class options and requirements. Part of the reason may also be that, even in a Catholic context, Aristotelian logic can be seen as restricting, legalistic, or even obsolete, replaced by the empirical and mathematical approaches of "STEM" coursework.

In the classical model, logic is a vitally important step towards a philosophical way of seeing. It is also of central importance, like grammar, in preparing the mind to learn and think in deeper ways in the pursuit of truth. One can certainly do well grade-wise in a science, math, theology, or English course, but, without a training of the mind in logic, most students will struggle to ask good questions that reveal further causes or be able to see the relations among various systems, facts, definitions, and concepts. In other words, the Achilles' heel of conventional education, disintegration, will once more come into play, since students will be missing the ability to see the fundamental ordering of reality that undergirds the various subjects they pursue.

7. Emphasis on Questions and Discussion

The classical model is often associated with a "Socratic discussion" or "Socratic seminar." These have also received increasing attention in conventional circles as well. A truly classical approach to this manner of having a class conversation roots itself in what Socrates actually did, which was to ask questions in the pursuit of truth and wisdom. Too often, "Socratic seminars" are carried out as open-ended conversations that resolve, not in truth, but in the participants each receiving the feeling that his or her voice has been heard and valued. In recent years, this has been carried further, such that what is presented as "open-ended" really just serves as a vehicle for affirming and celebrating a certain set of experiences and values that cannot be questioned or controverted.

The classical tradition recognizes that a person needs to learn how to ask good questions, that is, questions that actually lead to answers of significance in a given field of study. The person that ought to be best trained to ask good questions is the teacher; hence, the teacher plays the role of Socrates by leading the students towards truth through questions and redirection. The students participate by grappling with difficult questions and asking their own, hazarding answers, listening and responding to each other, and, ultimately, listening and responding to the teacher. The classical model places great value on distinguishing between what is objectively logical and true and what is a deeply felt stance or experience, such that the latter is a separate consideration from the former.

Since a classical model is aimed at seeing truth, goodness, and beauty, a discussion that ends in a completely open-ended way fails to serve this end. Certainly, difficult questions need not (and sometimes can't be) answered comprehensively, leaving students to wonder further about their import; nevertheless, the classical model is not satisfied with wonder as an end, but rather, as a beginning. Students are *born* in wonder – and that is a quality they should never lose –, but they are *fulfilled* in the actual attainment of truth, goodness, and beauty.

Discussion helps avoid a mode of instruction that makes the students overly passive. Both classical and conventional models value student participation and independent thought and questioning. Two key differences remain, however. First, the classical model is grounded in universal truth, whereas the conventional model rejects universal truth, except perhaps when it serves an issue of social power. This difference accounts for much of what I said in the previous paragraphs. Second, a conventional model will typically require a discussion to be subjected to some objective or standard, and thus translatable to a measurement that can serve as "evidence" of the objective or standard having been "met." A classical model is much more comfortable with conversations and discussions being valued for their own sake and for the truths to which the students are led through them. If no grade or standard is achieved or measured while these take place, that is no great matter. The teacher, of course, is constantly assessing, but not always in measurable ways; rather, the teacher, as a "master," can perceive and cultivate the habits of thinking that he or she would want his students to have in the pursuit of the transcendentals.

8. History Instead of Social Studies

On the face of it, doing social studies – which includes such subjects as history, cultural study, anthropology, geography, archeology, economics – instead of history seems to be a broadening of knowledge. Students are "exposed" to more varied fields of study and sources of knowledge. This approach is typical of the conventional model's love for variety and plurality, where "more" is normally better. On the other hand, in practice, this typically only transmits a fragmented and disintegrated view of human society and history. Recently, there has been an increasing push in conventional circles to counteract undesirable plurality, not through integration, which would be a principle of unity from within, but through the imposition of a set of socially powerful ideas and values to which all subjects (and the realities they address) need to conform.

The classical model's focus on history is a testament to its centrality in the classical model's *integral* – rather than ideologically imposed – unity. History immerses the students in a story that is ultimately about themselves, that is, about their heritage and the sources of their identity and context. As they develop their logical and rhetorical skills, students begin to see how history's deeper meaning centers on the ways in which ideas

have become incarnated in various cultures. Students are thereby given a vital way to think about the meaning of their own society, understanding it in its origins and its particular ideas. Without this historical formation, students would be severely limited in their ability to see the ideas of various subjects as a living tradition formative of a way of life here and now.

History, of course, necessarily includes geography, economics, archeology, and the rest, but its central purpose is to transmit a true, coherent, and meaningful story of the past, not a past edited to fit an ideological agenda. It is through that story that the various other ways of studying society become more broadly intelligible.

9. Western Civilization Instead of World History

The focus on Western Civilization follows from the classical Catholic commitment to hand on a coherent heritage. Not only does "World History" not offer a coherent cultural heritage, it lacks an integral unity and thus necessarily devolves into a series of more or less haphazardly connected cultural surveys. Western Civilization, a tradition of culture originating in the Near East, developed and spread by the Greeks and Romans, and transformed and raised in the Catholic Faith in Europe, contains an unbroken, traceable development. This is the civilization that developed on the basis of city-states, centered on religion, as well as on a tradition of thought that developed science and philosophy. The Greeks and Romans did not replace what had been developed earlier in the Near East and in Africa; rather, they enhanced and expanded these things. When the Christian Faith spread through the Roman Empire, it introduced an entirely new way of looking at reality; yet its transformation of culture was still in many ways an organic one, not merely destroying, but raising to a new level all that was good in Western Civilization up to that point.

It is this heritage that a classical Catholic approach seeks to impart to its students, indeed, through which it seeks to help students to understand their own identity and context in a coherent way. While it is true that American society includes a number of different cultures, the society itself – in its values, ideals, and institutions – is very much part of western culture. Furthermore, the study of Western Civilization is intrinsically coherent because the reality it studies is coherent. If, as we already said, one of the goals of history is to show students how ideas are incarnated in cultures, it makes sense that the classical goal of studying Western Civilization, especially in light of the Catholic Faith, is to initiate students in a living culture, a way of living that incarnates a way of worship, thinking, and acting in the world.

As is clear from its origins, "Western Civilization" is not an ethnic designation, such as "white" or "European." While a conventional model, interpreting history fundamentally

through the lens of power, increasingly views this civilization as inherently oppressive and unjust, a classical model finds in that tradition of culture, for all its imperfections, a meaningful identity and heritage. Indeed, it is the norm in human society for a people to first become intimately familiar with its own cultural heritage before it learns about others. This order of things actually serves the cause of a healthy cultural sensitivity and dialogue, whereas the multicultural approach tends to devolve into superficiality. In any case, the concern for knowing other cultures, for social justice, and for power dynamics are all ways of thinking inherited from the western tradition, which has become, for better or for worse, a truly global culture, such that almost every society is now influenced by the ideas and values of this civilization.

10. Terminology: "Science"

The classical model recognizes and respects the older meaning of "science," which was simply any systematic pursuit of knowledge by way of causes. Indeed, "scientia" in Latin can just be translated "knowledge." On this definition, theology, philosophy, and mathematics are all sciences. What we typically call "sciences" are more precisely termed "empirical" or "natural" sciences, that is, systematic pursuits of knowledge based on causes observed through observation and experiment, such as physical sciences, biology, and chemistry.

This terminology shift is important because it fits with a general trend that has long impacted conventional education, namely, the assumption that only mathematics and the empirical sciences yield true "facts," incontrovertible truths of reality. Anything outside of these is relegated to the realm of "opinion," endless debate and interpretation, and limitless variation based on personal experience. Of course, even mathematically and empirically verifiable facts are now being called into question, but that, of course, has only made our understanding of "science" even more misguided.

Sometimes, a classical approach will favor terminology such as "nature studies" to speak about an empirical study of physical reality. Indeed, this can help avoid the strange confusion in categorizing reality itself that can be found in conventional educational circles. When someone describes, say, the hatching of ducklings raised in a classroom as "science at work," this clearly conflates how, on the one hand, we can certainly study this phenomenon empirically and account for its physical causes, and how, on the other hand, we could also equally legitimately study it as an expression of the mystery of life or of the poetic richness of created reality. And the fact that these latter approaches might seem more flimsy or suspect than the empirical approach is likely both a result of the lack of rigor of which the "humanities" has all too often been guilty and of our own assumptions about what really is the more "substantial" and "serious" approach to reality.

11. The Classical Model's Relationship to "STEM"

The current emphasis in conventional education on science, technology, engineering, and mathematics (STEM), fits well with the conventional model's idea that students ought to be educated to be productive workers in a digital, global economy. The thinking is that, if education fails to give students, beginning from the earliest grades, a heavy and continual dose of these subjects, it will have failed to train students to be prepared to face and thrive in the contemporary world.

Making STEM the heart of education runs contrary to the classical model's end in philosophical thinking. In a conventional model, the purpose of teaching STEM is to give the students a training in manipulating reality and machines in complex ways. But a philosophical mode of thinking is about loving what is true, good, and beautiful in itself, not about producing, manipulating, or controlling.

So is the classical model doomed to be irrelevant? What is it to do with STEM and the contemporary situation? Is it perhaps possible to marry the contemporary emphasis on STEM with the classical model's emphases that I have already laid out? The classical model has always included mathematics and natural sciences. The Greeks had highly developed studies in various mathematical and physical fields of study, but they were always more interested in what was eternal and unchanging, rather than what is temporary and changeable. Now the reverse holds sway. Ever since the Scientific Revolution, the emphasis in studying the natural world has shifted from being primarily philosophical to being primarily production-oriented, dealing not so much in ultimate questions of "why" something is the case, but rather with more practical questions of "how" something is the case, how it "works."

This new emphasis has yielded impressive and unprecedented material development, but it has tended to shrink the horizon of the mind. The classical model is willing to delay the heavy training in STEM until students are first taught how to think well and deeply. This groundwork once laid, students will be able to enter any field, master its particular procedures and challenges, and retain a broader understanding of what that field is for and how it connects to broader questions of human life. The classical Catholic approach understands that we are doomed to self-destruction if we are not educating students to confront fundamental questions about reality and human experience. The worthwhile life is not the "productive" or secure one; rather, it is the one that pursues and is formed in excellence – ultimately in God Himself.

The classical model is by no means antithetical to new trends in mathematics and the natural sciences. Indeed, "natural philosophy" – the study of the fundamental causes, structures, and ends of the natural world – was traditionally considered a necessary

stepping-stone to higher philosophy. Thus, the classical model seeks to approach mathematics and natural sciences in a different, more philosophical and human way. As part of the Trivium and Quadrivium, they are studied not for the sake of training students to be successful participants in the contemporary world, but as integral parts of the students' grasp of reality as true, good, and beautiful. And it is through this approach that students will in turn be ultimately more fit to meaningfully engage with the contemporary world.

12. Technology in Its Proper Place

The question of the use of technology in education (and society generally) is, of course, a much discussed and debated one. A conventional model tends to emphasize the use of technology as a clear sign of educational progress, making instruction and learning more dynamic, interactive, multi-model, and relevant to the students' digital lives. This again fits with the conventional model's goal (among other things) of helping students successfully navigate a world dominated by the internet. After all, we are experiencing a "Digital Revolution," yet another step in humanity's evolution, including an evolution in the very nature of knowledge and learning

Indeed, it is becoming increasingly apparent that, though the internet is simply a tool like other human inventions, it is one that is very difficult to use well due to its highly addictive qualities, particularly for young minds. It is a tool that encourages rapid-fire and often superficial thinking, de-personalized interactions, and a sensation of movement and knowledge without true development or rootedness in reality or human experience. Of course, if knowledge, reality, and human experience are all up for re-definition, if the *mode* of knowing completely determines the *nature* of knowing and what we know, then all of these characteristics of internet use are simply so many aspects of reshaping the human mind and its engagement with reality.

The classical model stands on the commitment to reality with constant, transcendental qualities that are intelligible and perceivable in themselves, and thus cannot join the conventional model in its strengthening embrace of the Digital Revolution and its effects. The means by which we pursue knowledge are indeed highly influential on the ways in which our minds work, but they do not determine the nature of reality itself, nor what habits of mind are required to obtain a deep understanding and wisdom. As we have already explained, the classical model aims to prepare students to think philosophically, beginning in wonder and ending in truth and wisdom. A classical Catholic model aims to form students in that truth, such that the pursuit of the True, Good, and Beautiful in themselves transforms students into the likeness of the One who *is* these transcendental qualities. This pursuit and formation demand a certain frame of mind, a certain set of habits of thinking and acting, and a deep engagement with other persons and with reality.

The classical model, in order to properly pursue its end, requires a patient, slow, and quiet mode of proceeding, one increasingly perceived as "boring" and even repugnant to contemporary students. It seeks always to attract and engage students, but in ways that sometimes run contrary to the ways of thinking and feeling that constant internet use tends to cultivate. The use of the internet, videos, and various electronic ways of transmitting images, sounds, or ideas is certainly something that a classical model can incorporate, so long as these things do not dominate the classroom culture or displace what should be at the center, namely, person-to-person and person-to-physical reality interactions. These latter should be the norms of day-to-day instruction and learning, with the digital world reduced to a small part of a much broader whole, that much wider and more beautiful world that we can engage with our senses and through which we can love and worship its Creator.

Some Sources

• Christopher Dawson's The Crisis of Western Education

The greatest Catholic historian of the 20th century, Dawson not only traces the history of education and its role in Western Civilization, he also provides an insightful analysis of modern education and society and a positive response to some of their problems. He recognizes the need for classical education to be developed through a more developed historical sense and, above all, a knowledge of and love for Christian culture.

• John Senior's *The Death of Christian Culture*, *The Restoration of Christian Culture*, "Integrated Humanities Program: A Definition", *The Idea of a School*

Founder of the Integrated Humanities Program at the University of Kansas in the 1970s, Dr. Senior is an engaging thinker and writer seeking a radical answer to disorienting trends in society and education. He was quite influential as a teacher, helping to convert a number of his students at the University of Kansas before it shut down his program. His students would go on to found Wyoming Catholic College and Clear Creek Abbey.

• Dorothy Sayers's "The Lost Tools of Learning"

Sayers, the well-known author and intellectual, presented this paper in 1947. It proved to be a seminal work in reviving an interest in classical education as an alternative to the conventional, progressive model already dominant at that time.

• John Cardinal Henry Newman's The Idea of a University

Written in the middle of the 19th century, the saint's famous work on what a university ought to be is still, for the principles it presents, an important reference for understanding the nature of a liberal education.

• C.S. Lewis's The Abolition of Man

C.S. Lewis upholds the importance of a moral formation, the formation of the heart, in society and education, combatting various, distinctly modern dehumanizing tendencies already quite apparent in the 1940s.

• Kevin Clark and Ravi Scott Jain's *The Liberal Arts Tradition: A Philosophy of Christian Classical Education* (2019)

Clark and Jain have compiled one of the most complete references for classical education in contemporary times. Though not Catholic, they draw heavily from the riches of the Western Tradition to show what a liberal education is, what its ends are, and some practical applications, including reading lists.

• Jason Barney's A Classical Guide to Narration

A major contributor to the modern classical education movement, Jason Barney has produced a short, readable explanation of the use and importance of narration in classroom instruction. He draws heavily from Charlotte Mason, a 19th-century educationalist who has become an important source for the recent revitalization of classical education. He blogs at educationalrenaissance.com.

• Peter Kreeft's Socratic Logic: A Logic Text Using Socratic Method, Platonic Questions, and Aristotelian Principles

Kreeft has written the best and most approachable introduction to what we would generally call Aristotelian Logic. He not only teaches this logic, but also explains its significance in relation to weaknesses in post-Cartesian philosophy.

- Sr. Miriam Joseph's *The Trivium: The Liberal Arts of Grammar, Logic, and Rhetoric* Sr. Miriam Joseph, a member of the Sisters of the Holy Cross, helped to develop the curriculum for St. Mary's College and taught as a professor of English there for almost 30 years. Her book on the Trivium is clear, succinct, and effective at revealing the philosophy behind how and why the Trivium is taught.
- Josef Pieper's Leisure: The Basis of Culture

Pieper is a philosopher writing for a wide audience in the years after the Second World War. He shows how "leisure," properly understood, is the foundation of having a school, which, as both Dawson and Pieper are aware, is a primary means of transmitting the ideas of culture. Leisure is directed to contemplation and worship, the ends of true education in wisdom.

• Pope Benedict XVI's "Regensburg Address"

This lecture was made quite famous because of the stir it caused at the time of its delivery in 2006. The pope makes a strong case for the intimate link that the Christian Faith has to Greek thought and western culture, combatting the notion that the Catholic Religion is merely a spiritual reality that can be "de-hellenized" and transformed to fit any culture.