

Sun Tzu: The Art of War and 21st Century Curriculum Development – What Can The Early Asian Philosopher Tell Us About Developing Curriculums In The 21st Century?

Joseph L. Walden

School of Business, University of Kansas,
Lawrence, KS, United States of America

ABSTRACT

The Art of War was written by Sun Tzu around 512 BC. Sun Tzu's book focused on military strategy. However, looking the guidance from Sun Tzu can be adapted to curriculum development. This paper uses the words of Sun Tzu from a curriculum development perspective. With a curriculum development perspective, Sun Tzu provides some good guidance on preparing for, conducting and implementing curriculum reviews in order to keep the offerings to the students current and relevant.

Keywords: business, curriculum development, curriculum review, education.

INTRODUCTION

What does the writing of an ancient Asian military philosopher have to do with modern day curriculum development? At first glance the link seems a far fetch. After all Sun Tzu wrote about military strategy over 2500 years ago. The Art of War remains a staple in Asian Business Schools due to its link to strategy. The goal of this paper is to provide ideas for curriculum reviews and curriculum development based on the writings of this ancient author.

Sun Tzu's book *The Art of War* has been considered the seminal work on strategy for almost 2500 years since his work first came to light in the Wu Province of China in approximately 512 BC. His book on strategy is a required reading in many Asian business schools and has been the foundation of military operations in the Napoleonic Wars, the actions of the Third Reich, the Tet Offensive in the Viet Nam War and the success of the First Gulf War (also known as Operations Desert Shield/Desert Storm). His work has also formed the foundation for works on Sun Tzu and the Art of Business (McNeely, 2011) and Sun Tzu and 21st Century Supply Chains (Walden J. , 2015). Sun Tzu can provide us insights into curriculum development and curriculum reviews.

The writings from 512 BC provide us with some guidelines for developing or revising curriculum as we head into the third decade of the new millennium. The goal of this paper is to use different translations of Sun Tzu's *The Art of War* as guides or series of guidelines to revise current curriculums or to guide the development of new curriculums as industries continue to morph and evolve. With the changes coming to businesses and operations based on needs and shortfalls identified through the COVID-19 pandemic and the need for changes as provided by the social

unrest around the globe over inequality, the time is right for updating curriculums in all educational disciplines.

There are numerous translations of Sun Tzu available. Most of them say basically the same thing in different words. In the Arcturus translation, the first verses of the first chapter of *The Art of War*, Sun Tzu states that “war is a matter of vital importance” (p. 20). From an education perspective if we substitute curriculum development for war we now have “curriculum development is a matter of vital importance; the road to survival or ruin.” This is a very important issue as some education establishments have learned the hard way. One prominent school had a contract to provide courses for executive education for the US Army for over 35 years. The school balked at changing their curriculum to match the changing needs of the Army and lost the contract to another prominent university. Curriculum development was indeed the road to ruin in regard to this high dollar government education cooperative contract.

How do you conduct a curriculum review at the college/university level? When was the last time you did one? Has your school or department ever done one? Why do some schools go so long between curriculum reviews? Responses to these questions run from “we have never done one” to “we are happy with what we are teaching” to “why do a review?” None of these are reasons but simply excuses. Curriculum reviews should be planned, regularly scheduled, and documented.

As a full-time lecturer, part-time lecturer, or tenure track professor why should I care about curriculum reviews? We should all care about curriculum reviews. Our goal should be to provide the students with the best possible written and taught curriculums to prepare them for future courses and to prepare them for their careers.

How often is enough or too much? We obviously do not want to constantly change the curriculum, but every few years we should at least look at what is being taught. This is especially true in business where new techniques and technologies are impacting the real world. Also important to the development of a relevant curriculum is the need to balance academic theory with real world applications. A swing too far in either direction may skew the value of the curriculum to the students.

Who should be involved? Everyone that is teaching in a department should be involved in the curriculum review process since everyone will be impacted by any recommended changes to the curriculum. Plus, if everyone in the department is staying current with changes in the corporate world or even in the world of academia. The more quality input to the process the better the outcome will be.

I worked for a major University that caters to US Military personnel teaching a couple of online courses that had the exact same material that had to be presented in the exact same way in each section of the online courses. The material appeared to have been developed by someone that had worked in operations management decades ago and the book of case studies were decades old, some of the companies did not even exist anymore as a result of issues or decisions made long after the case studies were written. Some of the cases were so old that the students had never heard of the companies. While the university kept insisting that the materials were reviewed annually, during the five years that I taught for them there were no changes to the materials or case studies.

What amazed me was that as a regular adjunct professor for these courses, the curriculum review process never asked me as a practitioner at the time what should be included in the curriculum.

METHOD

Methodology

My research into developing supply chain management curriculums revealed that a number of schools do a curriculum review every couple of years while a larger number of schools contacted have not done one in recent memory with one having gone over ten years without a curriculum review for some of its programs. This got me to thinking that maybe some schools have gone so long without a curriculum review that maybe there is no one left on the faculty that remembers how to conduct one or even worse, no one on the faculty has ever been involved in conducting a curriculum review.

With that in mind, I reread Sun Tzu's book and tried to apply the ancient military strategy to conducting modern day curriculum reviews. By taking snippets and verses from *The Art of War*, and using a little literary license, convert those verses into guidance for conducting a curriculum review. Maybe the writings of Sun Tzu can provide guidance to conducting these curriculum reviews. The goal of this paper is to establish guidelines for successfully conducting a curriculum review and at the same time guidelines on improving or modifying curriculums based on the results of the reviews. But before we get started, let's take a look at some of the recent studies concerning curriculum development to establish the baseline for our discussions.

Literature Review

In 1978, Miller identified that as early as 1965 (1978) academic leaders were calling for new and fresher approaches to curriculum development and curriculum reviews. Fifty-five years later, we are still looking for that fresher approach as evidenced by the reference to outdated case studies in the introduction. Walker (1971) identified the same issue concerning the need to make curriculums relevant and current. History classes can teach about events from a hundred years ago – history is not going to change but the way the history is taught can be modified to be more experiential and relevant to the students. Business classes that are teaching historical case studies need to move forward and provide current case studies that the students can relate to, thus making the courses more experiential and relevant.

Kerr, et al., (2018) stressed the need for curriculums to include hands on experiences coupled with curriculums that are current and relevant to meet the needs of quality education while developing critical thinking skills in the students. In other words, the curriculum needs to teach the students how to think and not what to think. This is not a new discovery as one of the US Army's senior schools discovered about twenty years ago that they had gradually morphed into teaching students what to think. This realization identified the need for a major curriculum review. The findings of Kerr, et al., were echoed by Chang, Park, and Cho (2008) in their study of business schools' curricula. Their findings also pointed to the need for current and relevant curriculums with regular curriculum reviews.

Bules, et al., (2019) through a series of surveys with students and employers discovered a significant gap between what students are learning or being taught and what employers expect of the students when they graduate and apply for jobs. While not specifically stated, this would point to a shortfall

in curriculums in preparing students for employment. The goal of every university program should be to prepare students for employment in their career field upon graduation. Although the American Association of Universities makes it very clear that it is the primary responsibility of faculty to set curriculum (AAU, 2013), there should be some guidelines to help faculty coordinate with industry to help develop current and relevant curriculums. If there are shortfalls in the curriculum or if the curriculum is not current and relevant, in the words of Freire (1970), the faculty are doing an injustice to the students.

Erstad and Voogt (2018) present the need for curriculums to be up to date with the digital age and new learning strategies and approaches in order to reach the students. The only way this can be accomplished is through regular curriculum reviews. They also point to the changes in labor markets and the skills needed to be competitive in the job market. This same shortfall was pointed out by Walden (2018) in a study of supply chain management syllabi. Schatte, et al., (2018) while looking at medical education, also identified the need to prepare students to take the next step in their career progression from student to employee. Matthews and Mercer-Mapstone (2018) pointed out the need for regular curriculum reviews and updates to help the employability of graduates. They also pointed out the need for the curriculums to provide students with clear expectations and outcomes.

The 2020 Association to Advance Collegiate Schools of Business (AACSB) contains specific wording on curriculum development assessment in the accreditation of business schools: “Curriculum development: A process exists to engage multidisciplinary expertise in the creation, monitoring, evaluation, and revision of curricula; Course development: A process exists to engage content specialists in choosing and creating the competencies, learning experiences, media, instructional materials, and learning assessments for each course, module, or Session...” (2020, p. 10). This new guidance points to a need to have a framework for conducting curriculum reviews on a regular basis and for creating/updating courses and learning outcomes or at least

All the previous research into curriculum development and curriculum reviews points to the need for some guidelines for faculty to assist them in conducting curriculum reviews. With that in mind, this study into using Sun Tzu’s writings will provide some guidance on conducting curriculum reviews.

RESULT

Sun Tzu states in respect to war that it is “imperative that it be thoroughly studied” (p. 20). The same is true for curriculum development. This is not a haphazard discipline. There needs to be someone in every academic department, every school, every college that has studied curriculum development to ensure that it is properly planned and executed.

Sun Tzu gives us five critical factors for success in operations and can be applied to curriculum development:

1. The Way – this is also called the Tao in another translation (Tzu & Griffith, The Art of War). For curriculum development, this is simply what we teach and how we develop the taught curriculum. Has it changed over time or are we using the same methods that we learned several decades ago? Have we adapted “the way” to meet the needs and learning attitudes of a new generation? What are the new trends that should be included in the curriculum? For

some topics there may be no new trends. However, even in history classes there are new findings and new interpretations that may be considered for inclusion in the curriculum updates and reviews. For curriculum development, the way is also how we conduct curriculum reviews and how often the reviews are conducted. If your school or department has not conducted a curriculum review in many years, maybe the “way” needs to be revised. Even if the result is “we don’t need to change anything at this time,” a review is needed to determine that.

2. Heaven – while many of us would never consider the higher directed curriculum as heaven, it is at least the higher curriculum that has an influence in the written, taught and learned curriculum. Are we taking this higher curriculum guidance into consideration or like other aspects of curriculum development, has the higher guidance become obsolete and in need of updating as well? In the business community, the “heaven” or higher guidance may be the latest guidance from the AACSB or it may be the input from industry on what they are looking for in the graduates that they are hiring. When was the last time that your school consulted industry to see what they are looking for? From a secondary education perspective, when was the last time that higher education was consulted to see what institutions are looking for in new admission standards?
3. Ground – what do our constituents need from our graduates? For example, if you are conducting a curriculum review for a business program, what is industry asking for in their job announcements? Shouldn’t the needs of the companies that are hiring our graduates drive at least the electives that we offer as a minimum? In education, what are the schools that are recruiting graduates looking for in their new hires?
4. General – in military terms this is the commander in charge. In educational terms this is the instructor/lecturer/professor in charge of the classroom or the leader of the curriculum development team. Someone in each department needs to understand curriculum development, how to conduct a curriculum review and what should or should not be in a curriculum. This could be the department chair, the Associate Dean for Academics, or a subject matter expert in each career field that is dedicated to remaining current in that particular academic field.
5. Law – this is the policies that drive what is or what should be taught. These policies could be state directives, district directives, department directives, or school policies. These policies must be considered when developing/revising curriculums. We could take this one step farther and consider the “law” as the latest developments in the discipline. When developing a curriculum or reviewing a curriculum, new developments in an industry need to be considered. This means you must remain current in your field. For business schools, the “law” is the accreditation standards as set forth by the AACSB. This aspect of Sun Tzu’s factors, remaining current and relevant, is driven home by the 2020 AACSB Guiding Principles for Standards for Business Accreditation in Standard Curriculum:
 - a. “4.1 The school delivers content that is current, relevant, forward-looking, globally-oriented, aligned with program competency goals, and consistent with its mission, strategies, and expected outcomes. The curriculum content cultivates agility with current and emerging technologies.
 - b. The school manages its curriculum through assessment and other systematic review processes to ensure currency, relevancy, and competency.

- c. The school's curriculum promotes and fosters innovation, experiential learning, and a lifelong learning mindset. Program elements promoting positive societal impact are included within the curriculum.
- d. The school's curriculum facilitates meaningful learner-to-learner and learner-to-faculty academic and professional engagement" (2020, p. 37).

SWOT and Curriculum Development. The next important guidance from Sun Tzu for curriculum development and review concerns knowing yourself and your opponents. By this what he is really telling us is to conduct a curriculum SWOT analysis and to benchmark our curriculum against the best in class or at least against peer schools. SWOT is a business process of looking at the company and identifying Strengths, Weaknesses, Opportunities and Threats. The same process should be applied to curriculum reviews and curriculum development.

Curriculum reviews are similar in nature to conducting Strength, Weaknesses, Opportunities, and Threats (SWOT) Analyses in corporations – both processes require extreme honesty and thick skin if the review and analysis is going to be successful. In the corporate world the SWOT looks at what the company is doing well (Strengths), what the company is not doing well but should be (Weaknesses), what opportunities are available to the company (Markets, Customers, Acquisitions), and what is keeping the company from being as successful as possible (Threats). Conducting a curriculum review is very similar to this or at least should be.

US News and World Report and the Gartner Research Group provide rankings of the top schools. Look at the top ranked schools and what they are teaching as a benchmark of what should at least be considered as topics in a curriculum update. Ask the hard question: "Why aren't we listed in these rankings?" Maybe the answer is that there has not been a comprehensive curriculum review and the materials being taught are outdated. From a strength perspective, the question may be what got us in the rankings? What are the strengths of the current curriculum? In other words, what are we doing or saying that we are doing that we need to continue doing? What parts of the curriculum is the model for others to emulate?

What are the weaknesses in the curriculum? What is missing? The problem with identifying weaknesses in academia is the same as identifying weaknesses in business. Everyone loves to hear what they are doing well, but some people get offended or territorial when weaknesses are identified in curriculums. "I have always taught that" or "this is the way it was taught when I was in school" are common when addressing short falls in curriculums. Another commonly heard comment is "I am not comfortable with that topic." Not being comfortable with a topic or using the excuse "we have always taught it that way" are not good excuses for keeping the curriculum the same. Just because we have always done it this way is not a good course of action. In some cases, we have done it wrong so long that wrong looks right. No one in the organization knows what right looks like and the students suffer as a result.

From a curriculum review/development perspective, the critical areas to focus on may be what is not being covered (weaknesses) and what opportunities or additional topics should be included in the curriculum to improve the output from the process or in simpler terms, improve the quality of the graduates.

What are the weaknesses of the current curriculum? Is the current or even proposed curriculum relevant and up to date? When was the last time the curriculum was reviewed or revised? If it has been more than five years since the last curriculum review, you may be surprised to discover that it is no longer relevant. I recently observed a major university that decided to add an introductory business course that was loosely based on a similar course from a sister university. However, no one had thoroughly reviewed the curriculum or syllabus of the foundation course for relevancy to the region or for currency of the material. The result was a weak course that may not meet the needs of the regional companies.

What are the opportunities for changes to the curriculum? One recent study compared what syllabi showed as being taught to what hiring managers were asking for in their job announcements (2018). Not only did this study identify weaknesses in many curriculums but also identified opportunities for additions to the curriculums to make them stronger and more responsive to the needs of the companies hiring their graduates.

What are the threats preventing improvements to the curriculum? The threats could be a wide variety of threats to curriculum reviews and improvements. The most common threat seems to be “we have always done it this way.” Academicians seem to become comfortable in their ways, have slide decks prepared, homework problems and assignments prepared, and tests prepared and do not appear to want to change what they have. Another common threat seems to be what some call the “NIH Syndrome” – since it was not invented here, it must not be a good idea. This complacency and arrogance may threaten any updates to improve the curriculum. In some cases, the threat may be financial constraints. The shortage of funds to hire new faculty may be the threat to improving the curriculum by preventing adding new topics or subjects to the curriculum.

Curriculum Clarity. Sun Tzu provides us guidance on the clarity of the materials being taught. “If the instructions are not clear, if the explanations and orders are not trusted, it the general’s offense” (p. 81). What is he saying here? Sun Tzu is telling us that when we update curriculums and programs of instruction, we must be clear in what we tell the students and what the expectations are for the students in a particular course or module. The outline of the curriculum should ensure that the students know what they will be taught, how it will be taught, when assignments are due and just as important, why they are learning that material.

How much easier would learning be for students if each instructor made sure the students knew exactly what was expected of them, why they were learning that material and when each assignment was due? This needs to be taken into consideration when developing the written, taught and learned curriculums during an update process.

Strategy for Curriculum Reviews. Sun Tzu also provides us with guidance on the strategy for curriculum reviews. “Thus there are five factors from which victory can be known..” (p. 178). These five factors for victory and their interpretation in curriculum development are:

1. “One who knows when he can fight and when he cannot.” What Sun Tzu is saying here is that curriculum developers need to understand what they can and cannot teach in a limited time frame of the semester or quarter. This ties to knowing the instructor’s true area of expertise. This may mean bringing in a guest speaker to better cover a topic.

2. “One who recognizes how to employ large and small numbers.” Sun Tzu is saying there is not a one size fits all approach to the same topic. The lecture technique may work well for large classes but may not work at all in smaller classes. Group work may work well for smaller discussion classes but may not work at all in larger lecture hall classes. And what works at one institution may not work at all at another.
3. “One whose upper and lower ranks have the same desires.” Basically, all of the courses in a particular discipline need to be progressive and nested. The curriculum review needs to be a bottom up review. Start with the 100 level courses and progress through the 400/500 level courses. Do they build upon the previous courses, are they stand alone courses, are the courses nested within each other or are we simply teaching the same things at the different levels and repeating the materials over and over? The goals of the program should be consistent at all levels of instruction.
4. “One who is fully prepared.” All Sun Tzu is saying here is that the instructor must be prepared. The materials must be consistent, and the materials have to be current and relevant. This ties back to the SWOT analysis and knowing an instructor’s strengths and weaknesses.
5. “One whose general is capable.” Curriculum developers must be dedicated to remaining current and up to date with their materials. Instructors at all levels must research their materials to make sure the curriculums are updated, and the instructors are capable of teaching new materials if necessary, to prepare the students for the future.

Taught and Learned Curriculums. Sun Tzu even provides us guidance on the link between the curriculum and student learning. In Chapter 9 of *The Art of War*, Sun Tzu states, “If orders are consistently implemented to instruct the people, then the people will submit” (p. 210). From a curriculum development perspective, what he is saying here is that the curriculum must be consistent in the way that the material is presented. While it is not a desire of curriculum development to make the students submit, what is being said here is that if the curriculum is consistent, if the curriculum is current and presented in an interesting way, the students will want to learn. And after all, is that not the goal of any good curriculum?

DISCUSSION

Sun Tzu provides us guidance that is applicable to conducting curriculum reviews and curriculum updates. Using this guidance, what are the recommended steps in establishing the curriculum review? The first step is to remember that this is not a one person operation. Everyone involved in teaching the courses underneath the umbrella of a major or even minor program should be involved.

The next step is to collect the syllabi for all of the courses underneath a particular major’s program. This means that if there are ten courses related to a major topic then all ten syllabi should be collected and analyzed for common topics and linked topics. During this phase of the review it is critical to look for overlapping subjects. For example, during a recent curriculum analysis and update process it was discovered that two courses in the same program were duplicating as many as eight class periods for the same topic. Approximately one fourth of the academic year was duplicated in two of the required courses in that major focus area. In the business world with the rapidly changing face of business and customer options for products and options for how to buy the

products, duplicating one fourth of the school year indicates that there are critical topics that may not be discussed or taught as a result of the duplication.

A class period or two may be necessary overlap or duplication if the courses are sufficiently spaced that time may be necessary for review and refresher. However, one fourth of the academic semester is way beyond refresher. A similar study for the US Army a few years back revealed over forty hours of duplication between two phases of a senior level program. The result was the ability to add forty plus hours of instruction on other important topics.

The next step is to survey industry to see what the companies that are recruiting for our graduates are looking for. This could be done through a survey of companies through the school's career services centers or through a review of job announcements posted on the major recruiting websites. Walden (2018) studied developing a supply chain management common framework by comparing the syllabi from seventy-eight colleges and universities for their introduction to supply chain management courses to the requirements put forth in job announcements for entry level supply chain management positions as advertised over a five month period on the major job sites such as Careerbuilder.com, Monster.com, and Indeed.com. The results of this comparison revealed that there was a major disconnect between what was being taught in the introductory courses and what industry was looking for. In fact, there was only a 44% match between the syllabi topics and the job announcements topics. This would indicate that most universities are not teaching current and relevant materials in their supply chain management courses.

Is there a disconnect between what is being taught in the curriculum, as reflected in the syllabi, and what industries are looking for in the students that they recruit and hire? If one small company is looking for something that is not being taught that may be an anomaly, however, if many companies are asking for skills or subject knowledge that is not being taught, that would indicate a weakness in the curriculum and an opportunity to improve the program and curriculum.

The next step in the curriculum review process is to update the syllabi and the written curriculum. Do we have outdated materials? One review showed that an instructor was using a twenty-year-old case study about information technology (Walden, 2018). When you think about the leaps forward in information technology in the past twenty years, this would indicate that perhaps the material should be updated. Are there topics that are relevant in today's environment that are missing from the syllabus or program? In a recent address to a graduating class, Lou Holtz told the graduates that unless you are moving forward you are moving backwards. In other words, an old curriculum will not keep your program as a leader and may very well move you from a top ranked program to unranked or lower ranked.

The final step is to publish the new curriculum and start collecting data for the next review. At the same time, it is also time to start making a file for lessons learned during the curriculum review process. Collecting a file of what went well with the review and what did not go so well will help provide the next curriculum review team a head start on the process. If schools capture the lessons learned every time, they conduct a review, each future review should become easier to conduct and produce a better product than the previous reviews. This will also provide a continuity plan for future reviews should members of the current review team depart before the next review.

Conducting curriculum reviews can be painful, however, they are a necessary step in improving what is taught to students and can have a big impact on the reputation of the school and the rankings that drive new admission applications to the school. Using the steps identified in this paper as a guideline will help you get the ball rolling towards providing current and relevant education to your students. Using the guidance of Sun Tzu will help you organize your next curriculum review and posture your program to be the benchmark for future reviews and updates.

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