

2006-2218: TEACHING ETHICS SPECIFIC TO ENTREPRENEURSHIP

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Teaching Ethics Specific to Entrepreneurship

Abstract

Entrepreneurship students need the tools for ethical decision making. We have created ethical studies with elements specific to entrepreneurship (not merely a hybrid of business and engineering ethics) and a curriculum for teaching these ethics that educators can use in fulfilling this teaching obligation. We address some of the issues and rationale behind facilitating this educational experience and present a course outline using the Seven Layers of Integrity™ framework.¹

Introduction

By embedding ethics training in college level entrepreneurship education, educators can emphasize that, ultimately, entrepreneurial success is incumbent upon combining entrepreneurial skills and ethics. As educators, we are obligated to facilitate this learning. Universities have come to understand that the teaching of entrepreneurship is critical to giving students the tools needed to compete and perform in today's business environment. Indeed, some say that entrepreneurs hold the key to the future of business stability. Given that entrepreneurs may feel pressures different from those working for other kinds of organizations and that entrepreneurs' influence will be felt in the marketplace, educators must endeavor to recognize future entrepreneurs' needs and teach today's student entrepreneurs practical ethics applicable in this field. This paper discusses the rationale for teaching ethics specific to entrepreneurship, the

application of several theories and a framework and curriculum for teaching entrepreneurship ethics.

Rationale for Teaching Ethics Specific to Entrepreneurship

Entrepreneurial ethics should claim its place in the curriculum for several reasons:

- Entrepreneurs may face ethical challenges different from those of non-entrepreneurs
- Entrepreneurial studies has been a fast growing field seeking to distinguish itself from other fields
- Entrepreneurs may well have much impact on future U.S. and global economic stability

Entrepreneurs' Ethical Concerns May Differ from Non-Entrepreneurs'

While most may agree that teaching ethics to entrepreneurship students is important, the next question is why wouldn't engineering or business ethics suffice. The answer is that entrepreneurship has some features that are unique and entrepreneurs' ethical concerns are not identical to those of engineers and others in business careers. In addition, not all entrepreneurship students will have studied business and/or engineering ethics. As a new course offering, many institutions are offering Entrepreneurship with no prerequisite courses.

Thus, special circumstances pertain to the entrepreneurship student:

- With its extensive emphasis on opportunity, technology, and innovation, entrepreneurship differs somewhat from other business ownership or from non-entrepreneurial work within organizations.

- Entrepreneurs face expectations that they will aggressively compete based on assumptions about entrepreneurship—assumptions, for example, that entrepreneurs are more likely to bend rules.
- Studies have shown that the entrepreneur may feel more pressures to act unethically (Longenecker et al.²)

While the entrepreneur may and should seek positive ways of competing, he or she invariably feels pressure, perhaps more pressure than those typically employed within a large corporation. A Longenecker et al. Study² found that entrepreneurs feel more pressure to engage in unethical behavior than do managers in large corporations. They also found that entrepreneurs sometimes were more ethically critical in responses and sometimes less so. The entrepreneurs' responses were more critical of behavior regarding health and safety and less critical of actions that maximize personal financial reward than managers within a corporation were. Often with limited resources, and yet facing pressures to find customers and pay employees and suppliers, entrepreneurs find themselves confronted with decisions without the cushion afforded managers in larger organizations. In addition to fiscal pressure, entrepreneurs are also given direct responsibility for decisions involving complex relationships within their enterprise. Dees and Starr found that relationships often presented serious ethical dilemmas for entrepreneurs.³ For all these reasons, ethics specific to entrepreneurship should be taught.

Entrepreneurship must (and with right ought to) be recognized as a valued, respectable, valiant pursuit. According to Bucar and Hisrich the reality may be that “what many consider to be entrepreneurial behavior is a set of actions fraught with ethical dilemmas. Entrepreneurs are

often admired for the creative ways in which they overcome significant limitations, obstacles and sources of resistance to their new venture ideas. Practices such as bending or breaking rules, putting other people's resources at risk, creatively interpreting the facts, exaggerating one's position, and promising more than one is currently able to deliver are presented by some as clever manifestations of the entrepreneurial spirit.”⁴

The emphasis on entrepreneurial pursuits and the pressures accompanying entrepreneurial enterprises in themselves make entrepreneurs different, so it is incumbent upon entrepreneurship educators to actively define the differences between entrepreneurial pursuits and the deliberate exaggeration and misrepresentation of a business venture's true position. The popular image of the business world as battlefield has its place in the thought processes of experienced, hardened, world-weary business professionals but should not be the framework upon which to build entrepreneurship education. As Machan states in his treatise on ethics and entrepreneurship, “There is a fundamental difference between the business world and the battlefield...a war is simply a zero-sum game...no room for benevolence or sympathy.... Unlike a battlefield, the market has a multi-dimensional structure of competition, hence the possibility of attaining success through positive (or benign) competition...this is a situation where an entrepreneur succeeds in ways other than by deliberately seeking to undermine his competitors.”⁵

Unethical behavior occurs when pressures are brought to bear. The pressures on entrepreneurs differ sometimes in degree and often in kind from those of other businesspersons. The most common points of pressure on the entrepreneur occur in the marketplace or in finding financial backing. Entrepreneurs seek to keep their companies afloat and they often feel responsibility for

the entire enterprise. Business managers, on the other hand, are concerned with their roles in the corporation and with their status within that corporation. These differences in pressure points can be discussed and emphasized in ethical studies for entrepreneurs.

One way to more specifically teach ethics with a view to entrepreneurs' pressures and concerns is through the use of cases. In our case "WWP: Crossing the Line to Entrepreneurship" (See Attachment B), we portray an engineer entering the world of entrepreneurship. For the first time, he finds himself with no higher level management to consult on writing a proposal or even on how he advertises his services. His major concerns revolve around financial matters. He is less concerned with the ethical issues surrounding those matters (much as Longenecker describes in his findings on entrepreneurs' concerns²). He wants to secure the opportunity to consult with a start-up company, and he wants to impress the company's CEO by finding a lower price on chip manufacturing. This situation also involves personal relationships, which may come under strain because of the initiative that the entrepreneurial engineer has undertaken in his quest to save money for the start-up. Cases which reveal the ethical dilemmas involving hiring one's friends, often without advertising a job opening or interviewing others, are especially suited to illuminating the ethical dilemmas of entrepreneurs. On the other hand, more engineering oriented cases may revolve around health and safety issues related to products and to how the public at large may be affected. Other engineering cases may focus on decisions about complex technologies such as those involved with the space shuttle.

Business cases may differ from both of these and could emphasize conflicts of interest among groups in a large corporation. A good illustration of this involved the actual conflicts of interest

between the auditors at Arthur Andersen and the consulting group who didn't want the auditors to find problems with clients. The consulting group feared the loss of consulting clients. Another example of conflicts of interest occurred among large financial services firms when pressures were brought on analysts to avoid disclosing negative news about the investment bankers' clients. The different emphases in these three cases illustrate differences in ethical concerns brought about by the business environments. That is not to say that similarities between the three types of cases would never exist. Certainly, for example, financial fraud can exist in any type of organization and environment. In our curriculum, we want to choose cases that target the ethical decisions of entrepreneurs and make the teaching of ethics more pertinent to entrepreneurship through identifying and distilling the major concerns which exist in entrepreneurial environments.

Entrepreneurial studies: Distinguishing Itself from Other Fields

Not only does some of the literature on entrepreneurs distinguish them from others in business, the field of entrepreneurial studies has sought to identify itself as different from mainstream business studies, even though similarities exist. We see this distinction as another reason for creating ethical studies for entrepreneurial education. Higher education has allocated a great many resources towards keeping up with changing business trends: growing, modifying and customizing curriculum to better prepare graduates to compete in the ever evolving economic landscape. In the mid 1990's entrepreneurship education was born. Over the last decade it has become one of the fastest growing fields of study available to students. Entrepreneurship education has grown to prominence in much the same way as the enterprise start-up model it

teaches – it is an entrepreneurial venture itself, bootstrapped by faculty who have identified the need, harnessed the resources and created the opportunity.

Entrepreneurship educators have made a serious effort to provide the requisite knowledge and skills to become entrepreneurs. Less emphasis has been placed on the ethical context surrounding this subject matter. The time is ripe for us to develop entrepreneurship-specific ethics education; hybridizing business and engineering ethics will no longer adequately prepare our students.

Entrepreneurs' Possible Strong Influence on Future Economic Stability

In the post-Enron economy it is widely believed that small businesses and entrepreneurs may well determine future economic stability. Bucar and Hisrich contend that entrepreneurial companies will determine the ethics for the future world's economy.⁴ Given the influence of emerging businesses, the ethics that accompany these businesses must be given the same recognition in the curriculum as subjects such as finance and marketing. If the future of the world economy is in the hands of student entrepreneurs currently in today's college classrooms, entrepreneurship educators can no longer classify the teaching of entrepreneurship-specific ethics as an afterthought. Bucar et.al. quote D'Aveni, on this subject:

Understanding the factors that contribute to and influence the ethical conduct of managers and entrepreneurs is important for the future of the U.S. economic system as well as the economic system of the world. The significance of these factors becomes all the more salient when operating in a hyper-competitive global economy. Hyper-competition is a rapidly

escalating environmental condition, where markets are in constant disequilibrium and change.⁴

Bucar et. al. assert that “In such an environment, competitors aggressively disrupt the status quo and seek to change the rules of competition. While current businesses impact the ethical standards used in present business dealings, emerging entrepreneurial companies set the ethical tone for the future economic system of the world.”⁴

If entrepreneurship holds the keys to future business stability, entrepreneurs will come to determine the character of the marketplace. “Unless it can be shown that the entrepreneur does what’s morally worthwhile as an entrepreneur, that his role is ethically praiseworthy, not only his or her status in the market but the market itself becomes vulnerable to serious moral criticism.”⁵

James Feiser states that ethics is also called moral philosophy and involves systematizing,



defending, and recommending concepts of right and wrong behavior.⁶ Ethics applies standards in recommending right and wrong behavior. The Seven Layers of Integrity™ is a framework for discovering and understanding standards. This framework presents seven areas, each of which has its own standards. For example, law and regulations (the first and most concrete layer) provide one set of standards to consider when making decisions about what is ethical and what is not ethical. The other layers provide other sets of standards based on other perspectives. The final layer is that of moral values, the most individualistic layer, one that arises from a person's inner belief system.

Theoretical Underpinnings

Four theories concerning teaching ethics* underpin our curriculum:

- Cognitive Moral Development proposes stages of moral development which can be taught. If moral development (i.e. the development of concepts of right conduct based on standards) can be taught, then most certainly the standards can be taught.
- Integrative Social Contracts Theory recognizes ethical obligations based on two levels of consent, macrosocial and microsocial.
- Developing Moral Imagination requires the ability to look at different perspectives when making ethical decisions. The Seven Layers of Integrity™ provides perspectives from which to look at moral conduct and to develop one's imagination concerning right conduct for particular situations.
- The Bounded Moral Rationality theory asserts that limits exist when applying moral theory to actual situations.

*James Feiser states that ethics is also called moral philosophy and involves systematizing, defending, and recommending concepts of right and wrong behavior⁶. By understanding the terms in this way we believe that theories governing morals apply to ethics and therefore use the terms interchangeably when applying moral theory to ethical practice.

Cognitive Moral Development

The theory of Cognitive Moral Development (CMD) proposes that individuals will make different judgments on a given issue at different stages of moral development; these stages are measurable and proceed through six levels. Solymossy and Masters report that these levels can be attained by educational means.

Cognitive Moral Development (CMD) is formed, in part, from opportunities for role taking and participation in decision making. When the context of a decision requires behavior that is inconsistent with an individual's values or beliefs, the resulting cognitive dissonance creates a desire for change....When an individual's behaviors are inconsistent with his or her own beliefs, the individual may change the behavior, the situation, the cognition or the beliefs. In educational settings, researchers have reported success in raising students' CMD scores by promoting cognitive dissonance, as stated in Boyd, 1981; Candee, 1985; Goldman and Arbuthnot, 1985; Penn and Collier, 1985. ⁷

This finding makes the case for creating opportunities to learn by promoting cognitive dissonance -- clearly modeled in the discipline of entrepreneurship, in which innovation is based on disruption. One of our authors, June Ferrill, previously described using the Seven Layers of Integrity™ ⁸ to expose students to the ethical concerns of entrepreneurship. This system is presently taught in undergraduate classes at Rice University and has been taught for CPE credit to the Texas Society of Professional Engineers.

Several stages of moral reasoning development are recognized [in the CMD model]: pre-conventional levels based on concrete personal consequences, conventional levels with shifts to conformity with the expectations of referent others or society, and the final

stages--principled levels in which decisions are determined by overarching ethical principles. These levels correspond in large part to the Seven Layers of Integrity™ framework, starting with the most concrete--law followed by contracts--and then working through those less concrete dimensions closely aligned with culture--the business environment, the community, and personal relationships. The final dimension of this framework is the highly principled one of moral values. ⁸

By using a framework such as the Seven Layers of Integrity™ as the foundation for entrepreneurship ethics training, we give educators the tools necessary to make a difference in educating students about standards.

Integrative Social Contracts Theory

By recognizing the entrepreneurial community as a separate entity from the traditional business community, we are able to assimilate the customs of both. According to Donaldson and Dunfee, "...this integrative theory [Social Contract Theory] recognizes ethical obligations based upon two levels of consent: first to a theoretical 'macrosocial' contract appealing to all rational contractors and second, to real 'microsocial' contracts by members of numerous localized communities." ⁹ The Seven Layers of Integrity™ recognizes the macrocosm exemplified in law and regulations and professional codes of ethics as well as the microcosm of business and industry environments, the community, personal relationships and the individual's moral values.

Developing a Moral Imagination

The layers provide the various perspectives, which are needed, for developing moral imagination as discussed by Werhane in *Moral Imagination and Management Decision Making*. A moral imagination requires us to look at a situation from various perspectives:

A developed moral imagination gives managers means to disengage themselves from a particular situation, from its narrative, from one's roles, and from a dominating conceptual scheme. Moral imagination enables one to assess one's situation, to evaluate present and new possibilities, and to create decisions that are not parochially embedded in a restricted context or confined by a certain point of view.¹⁰

For example, this Seven Layers framework can be used when e-teams perform financial forecasting to garner funding. In deciding on ways to balance the rhetoric needed to promote positive features of their finances and product with the reality and possible risks of an enterprise's financial position, students can be coached through the Seven Layers:

- Begin by discussing the legal and regulatory standards for truth and transparency in financial statements and in advertising;
- Look at any contracts that would have bearing on what information needs to be revealed;
- Look at Codes of Ethics for those team members in various professions—codes which promote open and honest communications;
- Discuss the business environment the entrepreneur wishes to create and the industry and its standards, including those of competitors;
- Discuss the standards of their community of investors;
- Discuss personal relationships (often includes friends and relatives who are investors and employees);
- Discuss team members' own personal moral values and what they might bring to the venture. One way to facilitate this discussion is to refer to the assessment instrument used by the course to measure an individual's contribution to the team effort (see

Attachment A). The rubric discusses and measures the ways in which an individual's level of participation affects the success of the overall venture.

Bounded Moral Rationality theory

The Bounded Moral Rationality theory gives credence to the argument that entrepreneurship ethics can and must be taught and understood as a separate entity apart from business or engineering ethics while still bounded by the central themes of both. Below are Donaldson and Dunfee's four measures of the bounds within which one's moral rationality should exist:

1. Local economic communities may specify ethical norms for their members through microsocial contracts.
2. Norm-specifying microsocial contracts must be grounded in informed consent buttressed by a right of exit.
3. In order to be obligatory, a microsocial contract norm must be compatible with hypernorms.
4. In case of conflicts among norms satisfying Principles 1-3, priority must be established through the application of rules consistent with the spirit and letter of the macrosocial contract.⁹

Finally, we address the prospect of actually creating a vehicle that embodies these theories.

There are as many ways to build a curriculum as there are professional educators. In this instance we should once again follow the start-up model and seize the opportunity to disrupt in order to innovate. The curriculum that we have built includes seven class periods and can be taught as a separate mini-course or embedded into a 14 week/28 class period semester, during

which we offer these mini-workshops specifically focused on entrepreneurial issues. In this way, we create the opportunity for disruption. By basing these workshops on the Seven Layers of Integrity™, populating them with experts in the field and building the case for each of the seven layers through expert testimony, case studies and role play, we've created the opportunity for innovation and for students better understanding themselves through applied entrepreneurial ethics. Our next section presents an outline of the curriculum.

A Practical Approach to the Seven Layers of Integrity™

Neither business nor engineering curricula offer much opportunity to explore self-knowledge. In viewing themselves as present team members or future business partners, entrepreneurship students must begin to explore their own intentions and values while understanding that standards exist outside themselves. While striving to create innovations, students also encounter self-creation and the use of a tool to aid them in decision making.

In a workshop environment composed of part lecture, part large group discussion, and part small group-centered activities using case studies and role-play, we can introduce the Seven Layers concepts. Our outline for seven sessions can be expanded to include additional class periods.

The seven sessions described below introduce the Seven Layers of Integrity™.

1. The Law

The Seven Layers of Integrity starts with the most concrete, the law. In using the layers to ask questions about whether one should act in a particular way, the students can first ask if an action is illegal.

Lecture/Discussion: Employment law; knowledge of employment issues.

Case Study: Former employee of Company Y (with fraternity brother environment) sues Company Y for sexual harassment

Role Play: Interview conducted between entrepreneurs and potential employees

Other topics: Government interaction, regulations, product liability, truth in advertising.

Activity: quiz on employment law basics

2. Contracts

Contracts are another concrete concept. Because students often wish others to sign a non-disclosure agreement (NDA) before revealing their business ideas, this is a good way to introduce contracts.

Lecture/Discussion: NDA's and Non-compete agreements are appropriate contracts to illustrate this layer.

Case Study: Disillusioned early participant in a start-up takes background role in forming/financing a similar company and avoids violating contract.

Role Play: Entrepreneurs take on roles of both sides in the case study above and find the ethical (if not legal) conflicts.

Other topics: Employment Agreements, Ownership of Intellectual Property

Activity: Each student signs an NDA pertaining to the other students' concepts.

3. Professional Codes of Ethics

While some students may have been previously introduced to the professional code of ethics governing their particular discipline, no code of entrepreneurship ethics has been officially developed. We begin with an overview of several standard codes of ethics.

Lecture/Discussion: Codes of Engineers, Accountants, Medical Doctors

Activity: Find core of each profession's code – that code which is fundamentally not to be violated. Verbalize primary issues for an Entrepreneurs Code of Ethics. Write an Entrepreneurs Code of Ethics. E-teams develop their own code of ethics for their company.

Other Topics: Theory of Ethics, Professional Behavior, Professional Societies and licensing requirements

4. Business Environment

The most pressures for entrepreneurs exist in this layer, we believe.

Company culture, real versus stated values, actions that illustrate business environment, and industry standards are all issues that fall under this category.

Lecture/Discussion: A portion of the book *A Conspiracy of Fools*¹¹ deals with Enron's unethical practices of trying to persuade the investing public that its entrepreneurial Broadband subsidiary had great earnings potential and to make its technology appear to be further developed than it was.

Case Study: Industry Standards and Real Pressures - Cutting corners, overselling features, lack of testing

Role Play: Entrepreneur takes on role of investor

Activity: Questionnaire – imagining a business environment

Other Topics: Global standards, Whistle Blowing, Duty to Company

5. Community

Community can relate to a geographical community or to a group within an industry as a community, i.e. investors.

Lecture/Discussion: Bounded Moral Rationality Theory – relate it to the university community - tech transfer and use of university resources.

Activity – teams discuss and apply theory with regard to the industry in which their business will evolve.

Activity: Questionnaire – ranking individual concerns

Other Topics: Loyalty to or between groups, societal considerations

6. Personal Relations

Entrepreneurs very often look to friends and relatives for support, if not monetary then moral or even pitching in as needed. Question: How might the business affect these relationships and vice versa?

Lecture/Discussion: Personal relationships as applied to hiring friends or working with friends on entrepreneurial projects.

Role Play: Company's success has outgrown early stage need for family participants

Activity: List issues and possible ways to mitigate

Other Topics: Performance Recognition, Equitable Work-loads, Meeting Others' Expectations.

7. Moral Values

Reinforcing the notion that the entrepreneur is defined by his or her integrity, we can emphasize the importance of the entrepreneur-as-moral-conscience of the enterprise.

Entrepreneurs such as Ross Porot certainly put a stamp on the companies they start. Student or fledgling entrepreneurs may do the same thing.

Lecture/Discussion: Work ethic – begin with the individual conflicts that occur between team members regarding group work and move through full scale company issues. Use Individual Contribution to Team Effort rubric (Attachment A) for talking points.

Role Play: Partners in a start-up with different core values but a single vision for company.

Activity: Compare a list of company values with accompanying behaviors and opinions.

Other Topics: Falsification of Data, Personal Conscience versus Company Directives/Rights, Morality versus Legality.

Summary Activity: Use WWP case (Attachment B) for looking at violations across several layers: Law (Sharing IT property); Contracts with existing employer; Professional Behavior (Engineering Code specifies that engineers not perform work for other companies without the knowledge and consent of their employers); Business Environment—start-ups trying to save money and time; community—suppliers within the industry not upholding confidentialities; Personal Relations: the start-up owner and the engineer; Moral Values—personal conflicts of interest, trying to work for two groups (You will find other violations.) Further, the case can be used as the basis for a role-play activity, encouraging students to explore the use of moral imagination as a decision making tool. The case also shows that going from being an employee with a large engineering firm to working with an entrepreneurial company has its differences.

Conclusion

Of primary importance, entrepreneurship students need to study ethics because entrepreneurs not only set the ethical tone for their own fledgling enterprises but in the future they may set the tone for an entire industry. Indeed, some think that entrepreneurship holds the key to future global economic stability. A hybrid of business and engineering ethics will not suffice: just as entrepreneurship is held to be different from business ownership, entrepreneurs seem to differ from non-entrepreneurs in some of the ethical pressures they face. Given these reasons, we have developed an ethics curriculum more geared to entrepreneurial students' future needs. We base our curriculum on the Seven Layers of Integrity™ framework which has a practical application underpinned by the theories of Cognitive Moral Development, Integrative Social Contracts, Moral Imagination and Bounded Moral Rationality. This curriculum will enable educators to facilitate the exploration of ethics by their entrepreneurial students. No longer ignored entirely or taught as an afterthought, such ethics training can give these future entrepreneurs tools needed for ethical decision-making, necessary for their future successes.

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Attachment A: Assessment Rubric – Individual contribution to Team Effort

	Technical Contribution	Contribution / Resourcefulness	Leadership & Team Work	Professionalism & Interaction with Sponsor	
	<p>Technical knowledge gained and contributed set the course of the project. Amount and quality of work was paramount to the successful outcome of the project.</p> <p style="text-align: center;">9 9.5 10</p>	<p>Took on a disproportionately large portion of the workload & identified & pursued most of the resources needed to find the best solution for almost every aspect of the project.</p> <p style="text-align: center;">9 9.5 10</p>	<p>Inspired the vision of the team, nurtured a team harmony, and took on a role of leader when appropriate. Always a team player. Guided the progress of the project and delegated responsibilities; was paramount in project's success.</p> <p style="text-align: center;">9 9.5 10</p>	<p>Level of professionalism and maturity was exemplary. Fostered a positive professional relationship with others outside the team who were involved in the project, which added greatly to the success of the project.</p> <p style="text-align: center;">9 9.5 10</p>	Level A
	<p>Technical contribution was key in maintaining the integrity of the project. Amount and quality of work was key to the successful outcome of the project.</p> <p style="text-align: center;">8 8.5 8.9</p>	<p>Carried out agreed upon portion of the work well and on time, occasionally picking up extra responsibilities Individual exhibited initiative and ingenuity in his or her work.</p> <p style="text-align: center;">8 8.5 8.9</p>	<p>Willingly took on a leadership role as needed and did so efficiently and effectively. A team player. Interaction with team mates was positive and contributed significantly toward the project's success.</p> <p style="text-align: center;">8 8.5 8.9</p>	<p>Level of professionalism and maturity was beyond that of an average college student. Interaction with others outside the team was more than satisfactory for the individual to effectively handle his/her responsibilities.</p> <p style="text-align: center;">8 8.5 8.9</p>	Level B
	<p>Technical contribution was somewhat limited and neither added nor detracted from the project outcome. Quantity or quality of work did not contribute to a relevant and focused solution. Project outcome was not affected.</p> <p style="text-align: center;">7 7.5 7.9</p>	<p>Completed agreed upon share of workload, but quality and quantity of work was just the minimum. Individual did the work assigned but showed little initiative.</p> <p style="text-align: center;">7 7.5 7.9</p>	<p>Accepted leadership in minor aspects of the project but was not efficient or effective. Sometimes a team player. Interaction with the team did not contribute significantly toward the team's success.</p> <p style="text-align: center;">7 7.5 7.9</p>	<p>Level of professionalism and maturity did not exceed that of an average college student. Interaction with others outside the team neither inhibited nor contributed to successful discharge of responsibilities.</p> <p style="text-align: center;">7 7.5 7.9</p>	Level C
	<p>Technical contribution was practically non-existent. Quality and quantity of work was generally unsatisfactory and often detracted from the team's focus and the project outcome.</p> <p style="text-align: center;">6 6.5 6.9</p>	<p>Did not complete share of the workload. Individual was often complacent and took no initiative - let others do the majority of the required work.</p> <p style="text-align: center;">6 6.5 6.9</p>	<p>Did not assume a role of leadership in any aspect of the project. Rarely a team player Contribution to the team was sometimes counterproductive.</p> <p style="text-align: center;">6 6.5 6.9</p>	<p>Level of professionalism and maturity was unsatisfactory. Little (if any) ability to communicate effectively with others outside the team detracted from ability to carry out necessary responsibilities.</p> <p style="text-align: center;">6 6.5 6.9</p>	Level D
raw score	Technical Contribution Score:	Contribution / Resourcefulness Score:	Leadership & Team Work Score:	Professionalism & Interaction with Sponsor Score:	
formula	_____ x 2 = _____	plus _____ x 3 = _____	plus _____ x 1 = _____	plus _____ x 1 = _____	_____ subtotal divide by 7
					_____ total **

Attachment B: WWP Case: Crossing the Line to Entrepreneurship©

Review the Case and use the instructions below to discuss the ethical issues raised by it.

Stakeholders in case

- Electrical engineer employed by WWP, a large publicly-held engineering firm and outside consultant to Rapidmeals, a start-up
- CEO of Rapidmeals, who asked the engineer to be a consultant to her start-up
- Sales Director of Chipmakers, Inc—a supplier to WWP and potentially to Rapidmeals
- CTO of WWP, Head of Engineering Division

You are an electrical engineer currently employed by a wireless device manufacturing company, WWP. You have been asked by a friend, the CEO of Rapidmeals, to write a proposal to work as an outside consultant, on your own, for her company, a small start-up company manufacturing a wireless device for taking food orders. Although you are currently employed by another much larger company and you did sign a non-compete agreement upon employment, you decide that you do not have a conflict of interest because your current employer's devices are not used for taking food orders. And you've always been interested in being an entrepreneur. This may open that door for you. You quickly write a proposal and have business cards printed which announce that you are "The Best Wireless Consultant in the Business."

Once you begin consulting with Rapidmeals, you realize that the chip this company is designing could be manufactured at a lower cost by a different chip supplier (Chipmakers, Inc.) than the one they are currently negotiating with. To confirm this belief, you initiate a discussion with Chipmakers, Inc., giving them some specifics on the chip requirements. You find that indeed this manufacturer can make the chip cheaper. You immediately call your friend, the CEO of Rapidmeals, thinking she will be pleased about your finding. In fact, she is upset.

In addition, the Sales Director at Chipmakers, Inc. is a friend of the CTO at WWP, your current full-time employer. The Sales Director mentions you to WWP's CTO who recognizes your name and realizes that you are an electrical engineer in the Technology Division of WWP.

Case Instructions – How to Explore the Issues:

Each group member should take the position of one of the four stakeholders in this scenario: the electrical engineer, the CEO of Rapidmeals, the Sales Director of chip manufacturer Chipmakers, and the CTO of WWP. All of these stakeholders are now involved with the entrepreneurial world, whether they realize it or not. To help you in discovering the ethical issues involved, look at each of the Seven Layers and list all of the issues from your stake holder's viewpoint. Discuss these issues with the other stake holders in your group. Below are some questions to explore.

Electrical Engineer: From your viewpoint as the electrical engineer, what was the basis for your actions? Did acting as Rapidmeals' agent give you the right to negotiate with the chip supplier? What issues do you see within each of the Seven Layers? Now that you are beginning to confront some possible ethical issues, what might you wish you had done differently? Review the Code of Ethics for Engineers -- what possible violations do you see? What should you do now?

CEO of Rapidmeals: What reasons would you, the CEO of Rapidmeals, have for being upset on several fronts? In looking at this situation, what layers of the Seven Layers of Integrity model should you have considered? Would you also have cause to be upset with Chipmakers, Inc.? In fact, let's imagine that you might call Chipmaker's Inc. and ask them to now sign a non-disclosure agreement because some of employees have seen specifications on Rapidmeals' product. Do you now have any concerns about what others in the industry (e.g., WWP) might think about your soliciting the electrical engineer's services? What might you do now?

Chipmakers, Inc.: From the viewpoint of Sales Director for Chipmakers, Inc., how do you now feel? Who might you be upset with and why? What might you do now?

CTO of WWP: As CTO of WWP, how do you feel and for what reasons? Should you follow up with the engineer? In what ways?

All: What should the engineer/budding entrepreneur do to resolve this matter with the other three parties?