

Mind Map Marketing: A Creative Approach in Developing Marketing Skills

Lars Torsten Eriksson and Amie M. Hauer

In this conceptual article, the authors describe an alternative course structure that joins learning key marketing concepts to creative problem solving. The authors describe an approach using a convergent-divergent-convergent (CDC) process: key concepts are first derived from case material to be organized in a marketing matrix, which is then used as the platform for creation of a marketing plan through various forms of creativity resulting in four maps developed through mind mapping, the technique of focus for divergent thinking in this article. Finally, the matrix format returns to summarize the key concepts, models, and major decisions identified during the first two phases. The student benefits from the CDC process in learning marketing both through the (re)discovery of what is well-established marketing knowledge and also through creative learning to solve practical problems continually in flux.

Keywords: marketing; problem solving; creativity; problem-based learning; mind mapping studies; teaching; learning; business education; radiant thinking; matrix

LEARN LESS TO LEARN MORE?

Marketing processes throughout the years have gained recognition in the value chain of many companies, organizations, and public agencies. Marketing activities seem to be the answer to most organizational questions of the day. As the market economy system is applied to more and more areas in society, marketing is in turn becoming increasingly rich on concepts. The abundance of marketing concepts results in introductory textbooks becoming nearly encyclopedic. Take, for example, Philip Kotler's first edition of *Marketing Management* in 1967, which contains about 2,500 index words, and the most recent edition in 2003 (Kotler 2003b), which embraces nearly four times as many, arguably exceeding the total vocabulary of some students. It is no wonder that knowledge management (Grant 1996) has become an emerging discipline.

Yet while the abundant information gratifies the proclivity of some, the abundance itself is often a dilemma to students

who find it increasingly difficult to see the core thread in marketing, let alone select which models and concepts to apply to a given case study. The danger is that students find an information-prolific, rote approach to learning marketing neither compelling nor effective, and businesses (Titus 2000) demand them to be ever more creative in a changing business environment.

When managing large quantities of information, the capacity of "learning to learn" becomes more important than learning a fixed, static curriculum and, essentially, becomes the only effective alternative with the continual increase in conceptual richness. In this situation, we ask ourselves if, in fact, learning less could be better than learning more in introductory courses. What we mean here is the following: What if the 80/20 rule also exists in marketing education, whereby 20% of the material results in 80% of the learning foundation? If the answer to this question is yes, is there an emending course construct by which concentrating on a set of core concepts provides greater learning potential and further opportunity for creative problem solving? This is by no means to say that the other 80% of the material are without value. Yet, for learning's sake, it is more important to fully learn the most critical foundation concepts that establish a platform for learning the other 80% considered to be more contingency-dependent knowledge. (In 2003, Kotler also validated this by launching a new book, *Marketing Insights from A to Z* [2003a], that concentrates on just 80 key concepts.) In this way, more time could be used to develop students' creativity, which is described in marketing journals and textbooks on a surprisingly limited basis (Ramocki 1994; Titus 2000). The challenge, then, of students and marketing educators is both to manage abundant concepts and to deliver new, actionable knowledge. Research (Ornstein 1977; Sperry 1968; Zaidel 1983) about brain functions supports an approach to student

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learning that engages and provides immediacy, through linear and nonlinear methods, as an effective way to manage copious concepts and advance creative problem-solving skills (e.g., Albers-Miller, Straughan, and Prenshaw 2001; Dodds 1998; Gilbert, Prenshaw, and Ivy 1996; Jacobs 1984; Ramocki 1994, 1996; Titus 2000). Most textbooks demand that students converge to and critically make use of the existing knowledge in the field. In the limited writings on creativity, authors only occasionally notify the importance of convergent thinking to assess novel ideas (Gilbert, Prenshaw, and Ivy 1996).

In this article, we describe a conceptual approach developed for introductory marketing management courses and address the dual problem of how to orient in the existing body of marketing knowledge and at the same time be open to new marketing solutions. We postulate that “discovery” is a key process in effective learning both as students identify what is, in fact, already well-established know-how and also as they explore new and specific knowledge areas. The course follows three phases. The first is a convergent phase (thinking “within the box”), the second a divergent approach (thinking “out of the box”), and then a (re)convergent conclusion. We call this the CDC approach. The phases are supported by various creativity and assessment processes, and the outcomes structured in matrixes and mind maps. In this article, we place specific emphasis on mind mapping (Buzan 2002) as an approach to add divergent thinking to marketing education. Mind mapping has been seldom used in business education (Mento, Martinelli, and Jones 1999) and is given no prominence in university marketing education. At the end of the article, we will also give examples of other creative and assessment techniques that can be integrated into the CDC process.

CREATIVITY IN LEARNING MARKETING

Creativity is embedded in the theory of the market economy. From Adam Smith ([1776] 1910) in the 18th century to Joseph Schumpeter (1934) in the early 20th century, and as currently discussed in terms of “a creative class” (Florida 2002), “a creative economy” (Howkins 2001), and “intellectual capital” (Edvinsson and Malone 1997), creativity permeates the market economy. Still, marketing scholars seem to find the realm of creativity a difficult area to manage in the classroom. More generally, writings on creativity in business education are exceptions (Mento, Martinelli, and Jones 1999) and, more specifically in marketing education, less than overwhelming (Albers-Miller, Straughan, and Prenshaw 2001; Gilbert, Prenshaw, and Ivy 1996; Ramocki 1994; Titus 2000). Even Kotler, who devoted a special chapter to creativity in his first edition of *Marketing Management* in 1967, has only scattered information on creativity in his most recent editions (2003b). Titus (2000) addressed the reclusive status of creativity in marketing education with the acknowledgment that

little has been written concerning creativity within the curriculum of marketing education, and he further concluded that “current marketing instruction provides few opportunities for students to develop the prerequisite problem sensitivity to readily identify unmet needs in the marketplace” (p. 229). There is an apparent disparity between the creativity used and learned in the classroom and the focus of creativity needs in the business environment.

So what is contained by the creativity concept? Although it is unlikely to settle on a definition of creativity that has universal acceptance, we find that research and analysis of creativity theory focus on three main areas: the identified problem, the problem-solving process, and the solution.

In general, most definitions of creativity emphasize the *solutions* of creative behavior, in that the result must be novel and useful (Hennessey and Amabile 1988). Ramocki (1994), in a literature review, further summarized the majority of research efforts focused on the end result, with the predominant issue being the *degree* of novelty demanded for the result to be labeled creative.

Still other researchers (Rollof 2002; Watzlawick, Weakland, and Fisch 1974) have focused on the *identified problem* to be solved. Rollof (2002) asserted the primary challenge in formulating “fixed problems” into “flexible problems” possible of providing alternative solutions, while Watzlawick, Weakland, and Fisch (1974) paralleled this view yet made a further distinction between first- and second-order approaches. The former viewed the problem from within the box, the latter with out-of-the-box ideas using a totally new construct. Watzlawick, Weakland, and Fisch’s perspective seemed to imply that the problem’s perception has a role in placing the perimeter around the solution.

Amabile (1983) delineated the *problem-solving process* by distinguishing between algorithmic and heuristic problem solving. The former uses a known path to find a solution, and the latter has no clear or easily identifiable path to the solution. Titus (2000) specifically addressed marketing education to explain that the majority of marketing problems tend to be ill defined and hence heuristic. Overall, the abstraction of the creative problem-solving process as the systematic, disciplined, and sustained cognitive effort of divergent thinking is a frequently recurring theme of most creativity researchers (e.g., Amabile 1983; Couger 1995; De Bono 1999; Finke, Ward, and Smith 1992; Gilbert, Prenshaw, and Ivy 1996; Guilford 1967; Isaksen and Treffinger 1985; Jacobs 1984; Osborn 1993; Parnes 1988; Ramocki 1996; Titus 2000; Van Gundy 1988).

The relevance of using creativity processes in the classroom has been addressed by some researchers (Dodds 1998; Gilbert, Prenshaw, and Ivy 1996; Jacobs 1984; Mento, Martinelli, and Jones 1999; Ramocki 1994, 1996). Jointly, researchers have agreed that creativity and marketing education have been more about transferring the format given to other fields, as exhibited by studies of Couger (1995), Jacobs

(1984), Levitt (1983), Osborn (1993), Ramocki (1994), Titus (2000), and Urban, Hauser, and Dholakia (1987). Dodds (1998) and Gilbert, Preshaw, and Ivy (1996) specifically described contributions on creativity in marketing education within a separate course, while Ramocki (1996) and Titus (2000) described creativity within an existing marketing curriculum.

In conclusion, we find that despite the strong emphasis on creativity in the market economy, it is a traditionally troublesome area for marketing education, which often “solves” the problem by avoiding it. We recognized a need to develop educational tools and processes to encourage not only students’ critical thinking but also their creativity. Matrixes are often used in marketing as a descriptive and analytical instrument. Mind maps (radial diagrams, visual maps, networks) have been applied by Buzan (1984, 1989, 2002) and by Buzan and Buzan (1993) as a general approach to enhance creativity, but the technique has not been given any prominence in articles in marketing education (Ramocki 1996; Titus 2000). Our intention in this article is to show how matrixes and mind mapping can be added to the marketing curriculum acknowledging both divergent and convergent approaches. For this reason, we will develop special market, interaction, and organization (MIO) matrixes and MIO maps.

PEDAGOGICAL POSITION, PURPOSE, AND PROCESSES

Our primary target group is graduate students, and we like to see them leave the primary course in marketing management with (1) a strong grasp of the fundamental core in marketing knowledge, (2) a readiness to create constructive solutions based on a specific context, and (3) an understanding of how to proceed in contexts they know demand further learning. Our pedagogical approach is sociocultural (Vygotsky 1987) in the sense that we presume individual learning emerges through communication between people within a given cultural reference. To reach a sustainable learning development, the individual must reflect and take a position. The university contributes to the communication by providing intellectual tools (concepts, models, and theories) for reflections about marketing activities.

The course is viewed as a marketing development process using the CDC construct of a wave format in convergent-divergent-convergent thinking. Each phase uses creative and critical problem-solving techniques summarized in either a matrix or a map structure. The point of departure is case material, usually in the form of articles highlighting frequent marketing activities such as segmentation or branding.

Even though the increase in marketing knowledge has been substantial throughout the 50 years of modern marketing, there is a core of recurring concepts and themes. Finding demarcation between core and peripheral knowledge in marketing may be a research topic itself. Matrixes such as the

	MARKET	INTERACTION	ORGANIZATION
Diagnosis/ Present Situation	Customers Competition	Products Price Place Promotion	Competence Capacity Capabilities Mission
Opportunity Analysis	Opportunities Threats	Offerings Communications Availability Willingness to Pay	Strengths Weaknesses New Mission
Strategic Choices	Positioning Segmentation	Product Models Networks Branding Pricing Models	SBU Investments Alliances ROI Objectives
CRM/ Action Programs	Target Market Individual Customers	Marketing Mix Activities	Project Plan Budget

FIGURE 1: The MIO Matrix with Example Concepts

Boston Consulting Group matrix, however, are favorite tools to summarize findings in business education at large, yet they are narrow in scope. Thus far, we postulate such a marketing core as depicted in the MIO matrix (market, interaction, organization), an author-created model (described in detail later; see Figure 1). The MIO matrix synthesizes much of the basic marketing curriculum and makes it possible to work with a flexible number of concepts and models. This matrix content is derived from the common structure of basic textbooks, such as Kotler (2003b) and Lamb, Hair, and McDaniel (2002). In the first convergent phase, the MIO matrix supports students to select and build an overview from established marketing know-how.

In the second, divergent phase, we include the use of mind map techniques to enhance open-ended problem solving and creativity in reaching solutions. This is the major part of the course, built on the same major perspectives identified in the introduction phase. The third, concluding, convergent phase delivers critical assessment of generated solutions and provides the students with a clearer picture of what they have covered in the course.

Interaction in the learning environment is stimulated around the core concepts by using short cases in a flexible problem-based manner (Barnes et al. 1994; Mento, Martinelli, and Jones 1999; Schwartz, Webb, and Mennin 2001; Shapiro 1985). In this way, rather than rotely gathering intellectual tools through textbook reading or listening to lectures, students discover marketing concepts in a specific case context to learn the intellectual tools in a collaborative, problem-based manner. Throughout the course, students are encouraged to search for a deeper understanding of discovered concepts, for example, positioning and SWOT, through additional information sources, such as an accompanying text, the library, and the Internet. The instructor is a consultant for the students and provides advice to the project teams during their marketing plan creation. Instead of focusing on lecturing, the instructor has three main tasks: (1) to set up the course structure with supporting material, (2) to guide the stu-



Phase Content	(1) Convergent	(2) Divergent	(3) Convergent
Purpose	Discover Key Concepts and Models	Discern Problem Interpretations and Solutions	Apply Key Concepts and Models
Structure	MIO Matrix	MIO Maps	MIO Matrix
Creativity & Assessment Techniques	---	Six Hats Brainstorming Stimulus Analysis	Stakeholder Analysis Assumption Analysis Cost/Benefit Analysis

FIGURE 2: The CDC-Process Overview

dents in the use of creative and assessment processes, (3) and to support conclusions.

An overview of the approach is presented in Figure 2, and a detailed description of a syllabus in the appendix. In a problem-based approach (Schwartz, Webb, and Mennin 2001; Stepien, Senn, and Stepien 2000) the students are asked in Phase 1 (convergent) to discover the marketing concepts residing within a first case through instructor-led classroom discussions and reading about the concepts in the textbook. Gradually, the findings are classified in a matrix (the MIO matrix) helping students gain an overview of the case material. In Phase 2 (divergent), the students work in groups on a new case study using mind map techniques (the MIO maps), conjoined to creativity processes to build a marketing plan and in decision analysis. In Phase 3 (convergent), the marketing plans are critically assessed and the core knowledge of the class summarized in the matrix format.

In Phase 1, we first have sessions of convergence in which the students discover marketing concepts in the context of a provided case. Led by the instructor, students organize the concepts in a meaningful topography within the MIO matrix. This summary overview is important for perceptual grasp of the case content. The identified concepts are used as the basis for further reading in the textbook, the search for articles, and searching other information sources. The extent of the student's own discovery of essential issues in marketing varies depending on the time available and the level of the students. (Separate teams may also work on different types of businesses, such as services, goods, or public utilities, to support a broader range in the explored marketing concepts. Most often, however, these modifications are better addressed at the third, concluding phase).

In Phase 2, the students launch into a divergent phase using a different case to creatively develop four different MIO maps, eventually leading to a marketing or business plan. (The maps correspond to the decision-stage "layers" of the MIO matrix.) This new case can either be classwide or pro-

vided by the students' work experience, as is often usual in MBA courses. Students use the construct of the MIO matrix as a reference point in generating input for the maps and build project teams (Mento, Martinelli, and Jones 1999) to engage in activities we call *creativity and assessment techniques* (CATs; see later section). The actual extent of the maps depends on the standards set by the course and the time available. Time allowing, the groups may also continue with new cases, or teams may work in parallel on the same case.

In Phase 3, the last and convergent phase of the course, the student groups present their marketing plans and their MIO maps and the discoveries they made during their group sessions. The class looks at the discoveries of all groups and any noteworthy insights discovered in reaching their marketing decisions. The instructor may provide an overall summary using the matrix format of the case and any issues overlooked to point out concepts or differences due to specific attributes in the case, for example service marketing versus marketing of goods.

In the CDC construct, we provide recognition of core marketing knowledge as the platform for more open-ended problem solving, in which we have chosen mind mapping as a fundamental technique to support creativity. We will provide a more detailed description in the following paragraphs of the three main phases of the course that use the CDC process.

PHASE 1: CONVERGENCE THROUGH THE MIO MATRIX

Can creative solutions be generated "out of the blue," or do students first need a frame of reference? Amabile (1983) convincingly elicited the importance of domain-relevant knowledge for creativity effectiveness. Rollof (2002) provided further evidence to suggest that creativity without preconception is a misconception, and hence creativity does not thrive on the ground of no knowledge or the romantic dream of *tabula rasa*.¹ On the contrary, creativity is supported by a clear focus and direction. The question, then, is "How extensive does the frame of reference need to be?"

Gilbert, Prenshaw, and Ivy (1996) assumed that students have already taken a foundation course in marketing before entering creativity theory. Schwartz, Webb, and Mennin (2001) and Stepien, Senn, and Stepien's (2000) approach was to let students discover the useful concepts from showcases or articles and also through a fundamental marketing management textbook to ensure that marketing principles are not created at random or, rather, are discovered in the sources through the learning process. Yet Titus (2000) stated that "students sometimes lack a sincere appreciation for the theoretical concepts and frameworks covered by traditional marketing instruction" (p. 231). In essence, we synthesize the earlier mentioned standpoints and believe that students benefit from knowing core concepts, having tested empirical significance developed throughout the years, and learning those



concepts proven useful in most cases through a discovery process. We also believe that the creative approach is best when integrated in the core skill of dealing with marketing issues. Hence, we suggest solutions conjoining core concepts of marketing theory to creativity theory yet with a reduction in marketing concepts to bring the framework to a manageable level.

In examining introductory textbooks (e.g., Kotler 2003b; Lamb, Hair, and McDaniel 2002), we find that these perceive marketing from three central perspectives for the purpose of making long- and short-term decisions based on the conditions in the firm and the prospects of the industry. Basically, the three perspectives are (1) the market perspective, (2) the interaction perspective and (3) the organization perspective. The market perspective focuses on the business environment, the organization perspective concentrates on the internal resources and management of the firm, and the interaction perspective deals with the relationship between the organization and its potential market. These three perspectives are the pillars of the MIO matrix: market, interaction, and organization (cf. Eriksson 1998; see Figure 1).

It will come as no surprise that through reading the assigned articles and engaging in seminar discussions with the instructor, the students discover and identify the three central "umbrella" perspectives of Kotler (2003b); Lamb, Hair, and McDaniel (2002); and others that comprise the MIO matrix. Students will also find (through the questions posed by the instructor) that the MIO perspectives invariably deal with the (1) present company situation in accordance with (2) future anticipated developments in the industry. These "company conditions" (1, 2) are the basis for management's (3) long-term strategic decisions and (4) development of short-term action programs. These checkpoints (1-4) correspond to the brief decision chain regularly used in marketing (see Kotler 2003b; Lamb, Hair, and McDaniel 2002), and the instructor helps students to identify and agree on the parameters of the steps (Figure 1). Analyzing the company's present situation diagnosis, its opportunity analysis, strategic choices, and customer relationship management programs forms the four problem-solving steps (layers) in each of the three MIO matrix pillars, which steps are later used in the MIO maps (see Figure 1). We find that these problem-solving steps correspond better to marketing education than earlier, general descriptions given by Wallas (1926) and Titus (2000) in adjusting decision chains from other areas to marketing.

Students can deepen their understanding of the core concepts and models through the textbook. The concept meaning is presented and discussed in class seminars, then eventually connected to a quiz to strengthen and evaluate the learning of basic marketing knowledge. The students may be divided into teams in this first phase to find the concepts in the case material or articles in a group, interactive manner. The instructor supports their findings and lists them for the entire class to see. In the summary session of this phase, the instruc-

tor, through directed questions about the findings, creates the MIO matrix on the blackboard. In this way, the instructor fills in the matrix together with the students before classifying core concepts of the MIO matrix (Figure 1) once everyone is finished.

Finke, Ward, and Smith (1992); Guilford (1967); and Torrance (1990) recognized the importance of connecting divergent and convergent thinking in creative problem solving. The strength of the MIO matrix is its ability to provide a consistent direction and shared view of a present situation in making an environmental analysis and in considering strategic and operational choices. In this way, the matrix brings an apprehensible overview of key marketing concepts through convergent thinking. One goal of the matrix is to bring the number of pivotal concepts used in a basic marketing textbook to a manageable level, not exceeding Kotler's 80 (2003b), to maximize comprehension and retention. The MIO matrix supports convergent thinking ("within the box") in identifying the value of existing marketing know-how and establishes a platform to launch divergent thinking ("out of the box") through the subsequent MIO maps.

PHASE 2: DIVERGENCE THROUGH MIO MAPS

Following a structured matrix phase with open-ended thinking, we switch from convergent to divergent perspectives. A divergent pattern can be analogous to the structure seen in mind maps and radiant thinking (Buzan 1984) and radial diagrams (Osborn 1993; Titus 2000). The main idea is the same, namely, learning and thought structure builds on and connects to all knowledge, similar to the fundamental credo of systems theory, which touts that everything is connected to everything else. Mento, Martinelli, and Jones (1999) provided an example of how to use mind maps in courses dealing with organizational problems, and there are also instances of using mind maps in the medical field (Gedeon 2000). Building on the basic perspectives and concepts agreed on in the MIO matrix of the convergent phase, we find mind mapping to also be a solid tool for divergent thinking in marketing, hence making it possible for students to find contingency-dependent solutions for marketing of services, goods, and nonprofit utilities, and in domestic versus international situations.

The instructor introduces the divergent phase by first lecturing on the mind-map technique (Table 1; see Buzan 2002; Buzan and Buzan 1993), and then guides the students in converting the MIO matrix core into a first mind map structure on the blackboard. Each branch of the mind map corresponds to the three MIO perspectives. The basic map structure is then divided into four maps (MIO maps) corresponding to each of the decision layers of the MIO matrix (for a review, see Figure 1). The idea of four different maps with their main MIO branches is given to the students as a starting point. These

TABLE 1
HOW TO DRAW A MIND MAP

1. Start at the center of a blank page.
2. Use an image or picture for the central idea—and throughout the map.
3. Use color.
4. Connect your main branches to the central image.
5. Make your branches curved rather than straight-lined.
6. Use one key word per line.

SOURCE: Buzan (2002).

mind maps are given to the students one by one as the fundamental tools for group work during the divergent phase of the course. Besides an understanding of mind mapping, input to work with the MIO maps is supported by a new case. MBA students are usually motivated by using case information about the company at which they are employed.

To provide students with lead time to start working on the MIO maps, there are several supporting activities. The instructor can present cases on successful/unsuccessful cases in marketing history alongside seminars by librarians to increase information search competence and introductory training on creative techniques. Most students also find it interesting to learn more about allegedly creative people, for example, inventors and entrepreneurs such as Nobel and Bell, scientists such as Einstein and Linné, or artists such as Picasso and Chagall.

Next, we describe the four distinct maps of this phase, in which the four decision stage layers of the MIO matrix are converted into MIO maps labeled diagnostic, opportunity, strategic, and customer relationship management (CRM).

The Diagnostic Map

In this first map, students describe the present situation of a company as described in the new case. The end result is a concrete, factual summary, for example of present customers or competitors. The purpose of the diagnostic map is to generate a shared view of the three main perspectives of the company (market, interaction, and organizational) from the angle of the present situation. Within an actual company, business is generally viewed from many different positions, which makes a shared view important as it facilitates the next maps. Among many useful creativity tactics, stakeholder analysis is valuable here as different persons, such as the CEO, CIO, marketing director, and operations manager, describe their perspectives of the present situation. Such activities provide students with the exposure of how different views affect understanding of a situation and why a shared view is vital.

The diagnostic description is generally performed in small groups. At the end of this map stage, all the group maps are brought together and compared for a cross-reference of what

can be considered key concepts of the case. Creativity techniques are not usually needed at this point. Frequently applied key concepts, information sources found, and descriptive techniques for the diagnostic map phase are illustrated in Figure 3, which is a map the instructor may use to summarize the general findings of the first application stage.

The Opportunity Map

In the opportunity map, students discover profitable ways to develop the current business, and in marketing textbooks, this map corresponds to *situation analysis*. The primary focus is on the industry as a whole, not on our enterprise. In the opportunity map, we are interested in threats and opportunities, because we will have to take a stand to the individual development for our specific business in the following strategic map.

Students establish the same basic mind map structure for analysis as discovered in building the diagnostic map, yet the market will sometimes be more broadly defined as *external factors*, interaction viewed as *relationships*, and developing organizational management as *internal factors*.

External sources of information will be identified in this phase such as data from the National Statistics Office and trade organizations. If the opportunity maps are created in different groups, bringing them together for comparison at the conclusion of this map brings insight into the varying industrial conditions for business firms. The comparison also provides information on different marketing paradigms if several cases are used.

This is a key discussion for out-of-the-box thinking. Since opportunities are the focus, this phase benefits from creativity techniques such as the mind map structure itself and added processes (see the later section on CATs). A main component of this phase is to actively search for ideas. Brainstorming and stimulus analysis are useful to begin discussions because they are focused on the initial gathering of ideas and are less restrictive. Another useful tactic is using pictures as idea triggers, for example, pictures of products, market competitors, and company “stakeholders.” After generating ideas, tactics such as negative brainstorming or bullet proofing help filter out those less viable by addressing risk. Other useful tactics in this phase are ones that lead the group through perspectives and help manage individual opinions, such as six hats (De Bono 1999) and others. Using techniques beyond the map itself reveals more opportunities and amplifies student engagement (see the later section on CATs).

Figure 4 provides an example of the theoretical bases to apply for an opportunity map for the instructor summary.

The Strategic Map

In the strategic map, the individual company firm is the focus. Possible strategies within the trade or industry are derived from the selection contained in the prior opportunity

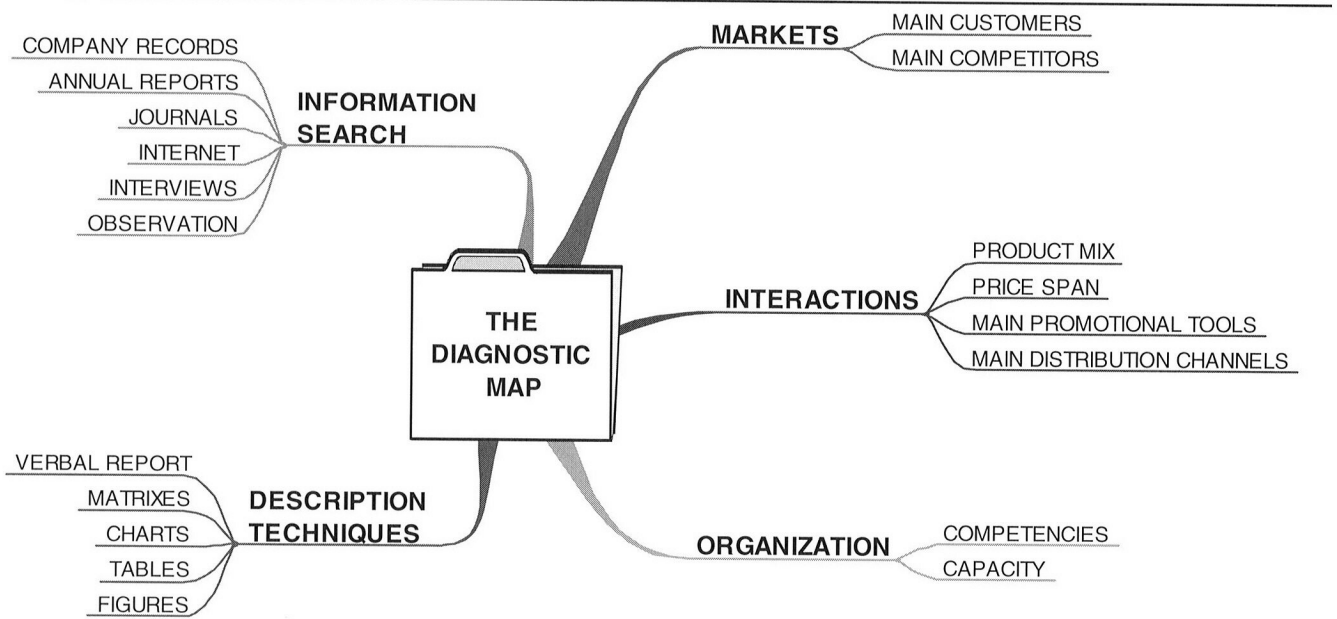


FIGURE 3: Diagnostic Map

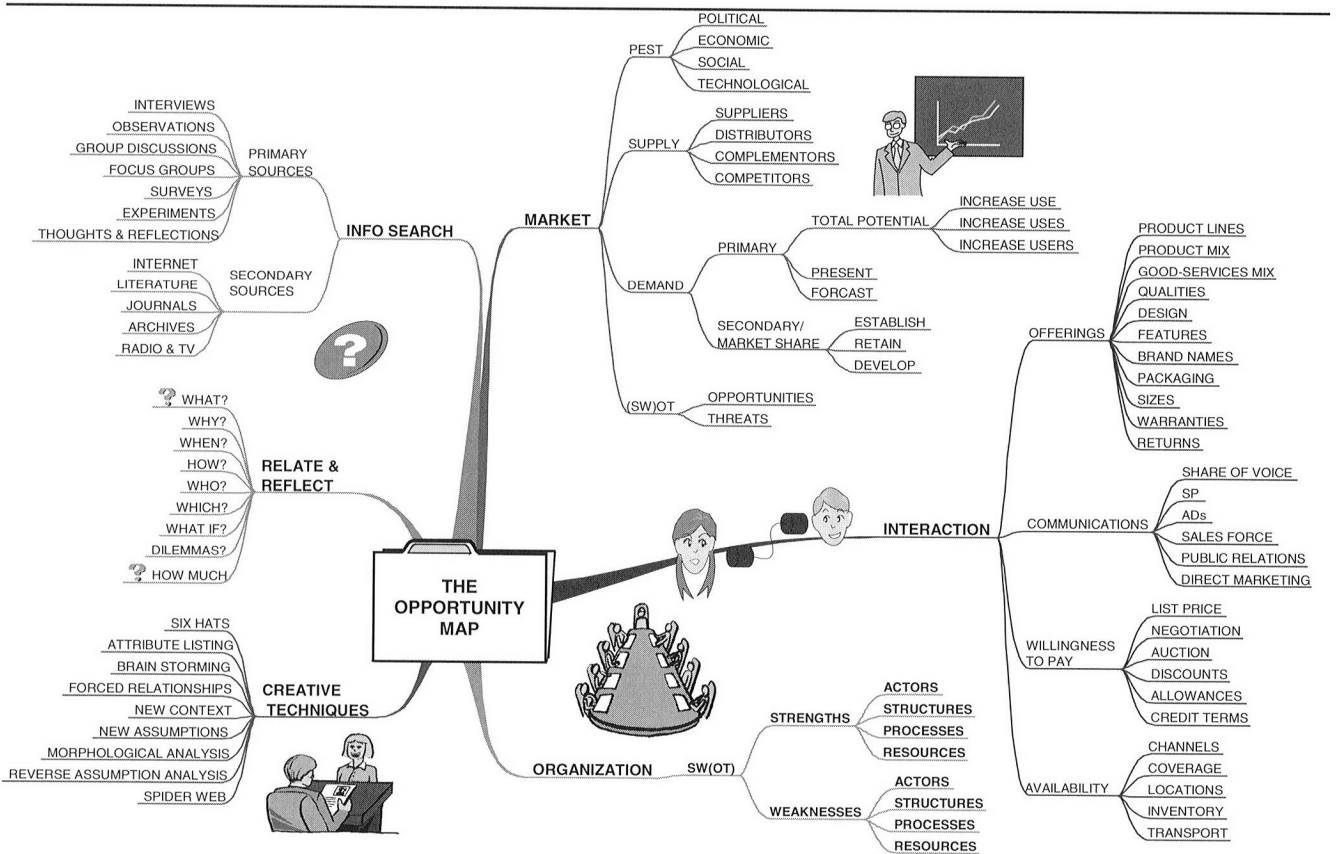


FIGURE 4: Opportunity Map

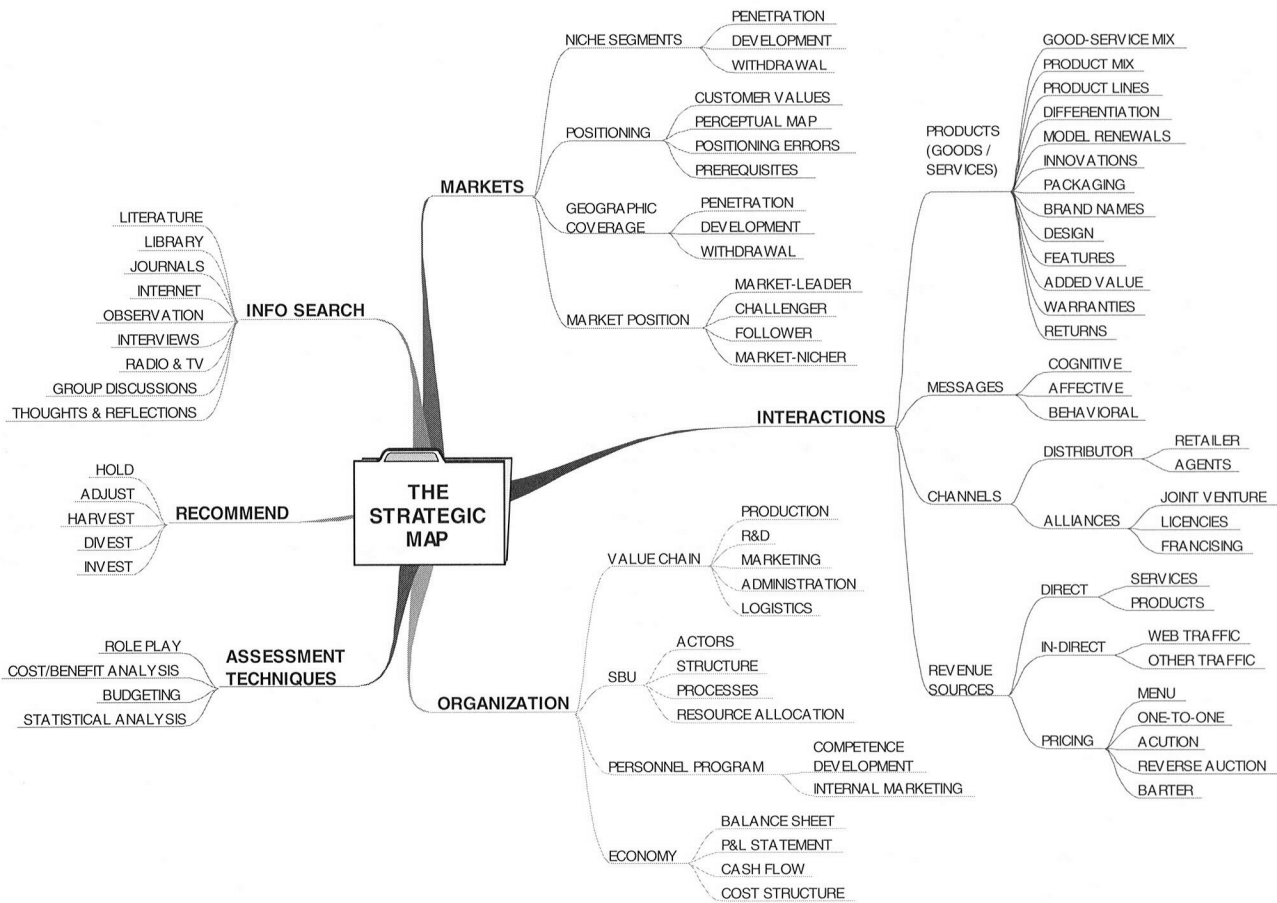


FIGURE 5: Strategic Map

map. Discussions at this stage are divided between (1) generating strategic options and (2) assessing the strategies' viability.

A previously well-developed opportunity map unearths possibilities for selection as decisions or solutions in this strategic map phase. New to this phase are decisions to recommend solutions, and such recommendations must be well grounded; that is, students should provide information to support their argument for selecting a specific strategy as a decision. Because it is easy to decide a choice between alternatives if there are no criteria or reasoning behind the decision, the students must support their argument in the later evaluation of Phase 3. Consequently, establishing criteria is an important part of the mapping process. To support creativity and critical thinking, use assessment-focused creativity tactics. For example, assumption surfacing assesses opportunities on plausibility and impact by using a grid similar to the Boston Matrix. Other tactics are implementation checklists that help the group to acknowledge the realistic constraints of ideas; Q-sorting or paired comparison, which help to assess priority or problem degree; and the traditional cost-benefit analysis.

Figure 5 provides an example of the theoretical bases to apply for a strategic map for the instructor summary.

The CRM Map

Once a decision is selected in the previous strategic map, it is transformed into one or several action programs during the CRM map. Since the action programs are executed as customer relationship management programs, we label this the CRM map. At this point, we are on the threshold of implementation. Hence, this phase is more management focused. This map is where short- and long- term activity programs are connected and also activities to retain and develop customer relations. The focus is on (1) generating activities and (2) activity design. Similar CATs can be used in this map as the strategic map.

Greater ranges of solutions are produced when groups are used. Figure 6 illustrates the typical tally of factors delivered when all group maps are brought together at the conclusion of this map session.

In summary, the MIO maps and the MIO matrix work together in forging a stronger union between knowledge of marketing concepts and actively creative problem solving.



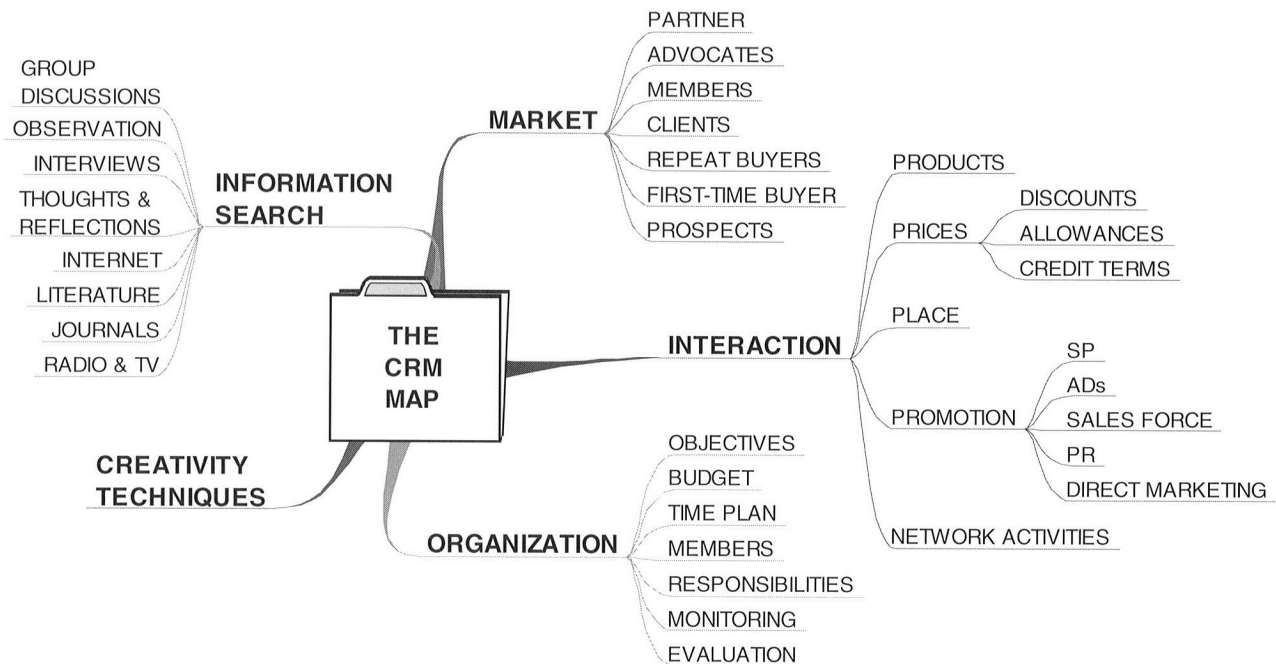


FIGURE 6: CRM Map

The MIO matrix supports the students in selecting information from established marketing know-how, and the MIO maps stimulate open-ended problem solving resulting in more alternatives than are customary. The creation and design of alternatives can be further supported by the use of specific creativity and assessment techniques.

PHASE 3: CONVERGENCE THROUGH MIO MATRIXES

As the participants present their marketing plans, the course enters the third and final phase, in which created material will be assessed and the total learning experience summarized. The students are preferably engaged in swapping marketing plans with one another and assuming the role of critical consultants. By engaging the students in this role play, they find that stakeholders view solutions in different (and sometimes conflicting) ways. The instructor concludes by giving an analysis in the now familiar matrix format. Typically, we emphasize four different convergence points.

First, a typical problem is that strategic choices are suggested with few (if any) alternatives and without closer adherence to established criteria. This is the time to question the results of the groups. Do they match the criteria they were encouraged to state before the creation? Strategies should now be put to the litmus test of critical thinking, challenged by the question, "What if?" What if demand fails? What if competitor A launches an alternative?

Second, participants are usually happy in suggesting short-term marketing activities in the CRM plan yet more reluctant to evaluate the costs versus benefits of such activities. Usually, the creators are also more optimistic in their assumptions than their opponents would be, which invites a special assumption analysis of short-term plans. Again, "What if?"

Third, the MIO matrix requires scrutiny of the consistency between the four lateral decision stages: How does the present market situation compare to the opportunities and threats described in the opportunity map—and how is that converted into the market analysis for strategic and CRM choices, respectively? The same vertical consistency can be evaluated for the interactive and the organizational perspectives. Porter's (1985) concept of a value chain is often valuable in this analysis.

Finally, in summarizing the cases in a MIO matrix format, the instructor can point out specifics of a case not included during the first matrix of the course. This becomes even more valuable when groups have worked with different types of cases, which opens the topic for discussion between different marketing paradigms, for example industrial and consumer goods and services. The students obtain a view of the complexity of marketing and different situations that can benefit from new approaches.

The instructor may find some of the items in the lessons learned section noteworthy for inclusion during this final Phase 3.

CREATIVITY vs. ASSESSMENT	TECHNIQUE	EXAMPLE URL
√	Assumption surfacing	http://www.mycoted.com/creativity/techniques/assumption.php
√	Attribute Listing	http://www.mycoted.com/creativity/techniques/attribute.php
√	Bug Listing	http://www.mycoted.com/creativity/techniques/buglist.php
√	Brain Storming	http://www.mindtools.com/brainstm.html
√	Cost/Benefit Analysis	http://www.mindtools.com/pages/article/newTED_08.htm
√	Forced Relationships	http://www.windarooss.qld.edu.au/Main_Pages/Strategies/page_11.html
√	Stakeholder Analysis	http://www.scu.edu.au/schools/gcm/ar/arp/stake.html
√	Six Hats	http://cispom.boisestate.edu/murli/cps/sixhats.html
√	Storyboarding	http://journalism.berkeley.edu/multimedia/course/storyboarding/
√	Statistical Analysis	http://www.stanford.edu/~savage/stat.pdf

These are just a few examples of available Creativity and Assessment Techniques (CATs). For a description of more CATs, see <http://www.mycoted.com/creativity/techniques/>

FIGURE 7: Some Creativity and Assessment Techniques

SOME WORDS ABOUT APPLIED CREATIVITY AND ASSESSMENT TECHNIQUES (CATS)

Data are by definition not information, and obtaining information does not necessarily result in learning. To internalize information for learning, deeper processes are usually required. The selection of key concepts for the MIO matrix also implies an assessment mechanism, whether overt scrutiny of a given parameter or simply acceptance of an opinion leader (trust in the instructor’s expertise). In parallel, working with map creation can be further supported by the use of specific creative problem-solving processes: CATs. This means that each and every variable can be the focus for one or several creative or assessment exercises.

Instructors have meager time to investigate ways of processing course information. Reading, writing, and research dominate instructors’ activities. This is one of the reasons why we list some activities available for ready use. The processes can be used in conjunction to increase the likelihood of an environment encouraging creativity and a broader search for developing solutions.

A CATs session can be instructor led and/or self-governed by students. Students are then encouraged to investigate and report the results of several creative sessions, of which only the first sessions may be instructor led. For example, brainstorming can be used to generate the rich first draft of an opportunity map. Six hats can be used in the creation of strategies and action plans. The result can be developed further in a following strategic map by applying assumption analysis. Creativity and assessment techniques can be used until no

further ideas are generated or, more usually, we simply run out of time.

We will not go into detailed descriptions of various CATs in this article because this would carry this text too far, and some descriptions are readily available (see Figure 7; Buzan and Buzan 1993; De Bono 1970, 1978; Finke, Ward, and Smith 1992; Gilbert, Prenshaw, and Ivy 1996; Jacobs 1984; Ramocki 1996; Titus 2000). For assessment, it is also beneficial to connect to traditional tools in business, for example investment, statistical, and cost/benefit analysis. Some CATs can, paradoxically, be used both for creation and assessing; for example, role playing in the form of the six hats is beneficial for creation, but in the form of a stakeholder play will be more assessment based and evaluative in nature.

LESSONS LEARNED

The goal of the approach to learning marketing discussed in this article is basic theoretical knowledge and the readiness to work open-ended in complex, applied situations. Students have performed equally well on traditional exams, yet show more interest in, and frankness toward, new situations with this course approach. Instead of numbly reproducing textbook material, students engage in discovering theoretical concepts and models as useful tools to describe, communicate, analyze, and make suggestions in a given case. Our pilot evaluations thus far also indicate that the approach described in this article enhances both student motivation and engagement in the course material. In Table 2, the responses vary from 1 (*highly positive*) to 5 (*highly negative*).



TABLE 2
STUDENT FEEDBACK ON COURSE STRUCTURE

<i>After This Course in Marketing Management</i>	<i>Mean Value</i>
I feel my knowledge of key marketing issues is (<i>much stronger—unchanged</i>)	2.11
If faced by a marketing problem, I would feel (<i>more confident—more uncertain</i>)	1.88
My view of a marketing problem will be (<i>more open-ended—about the same as before</i>)	1.87
My approach in solving a marketing problem will be (<i>more open-ended—about the same as before</i>)	1.79
My interest to learn more about marketing is (<i>much greater—much less</i>)	1.55

NOTE: Sample size: 62; class-distributed survey; Likert-type scale, 1-5.

Overall, the extent of each CDC phase and the number of creativity and assessment sessions vary depending on the time available and level of the students. The course start can also vary from a brief introduction to more structured presentations of a showcase, examples of case findings, or discourse on understanding the learning environment. The main focus of the instructor is to guide and support the CDC process. For example, the instructor must be prepared to guide the students to information sources and discuss the findings in these sources for appropriateness. Thus far, we find that MBA students consider it rewarding to actively discover a coherent view of their entire business by using this approach, while younger students find it more acceptable to be mentored through earlier maps and then to concentrate on one of the later strategic or CRM maps. The mutable process of gently mentoring younger students to improve confidence toward building their own final map, while allowing more advanced students to operate with greater independence, has served both student segments well.

Specifically, during the diagnostic map, the team benefits from a leader who can rein in the team from using excessive time on this map. We call too much time on the diagnostic map the *investigation trap*. A guideline to avoid this pitfall is to spend no greater than 20% of anticipated total business plan time on this map. It is not necessary to find or share a picture of the company that is objectively correct in every detail. To share the main picture of the present situation is usually enough. An advisory guideline helps students acknowledge how easily it is to get stuck in discussions about the picture of the present state of affairs, which will make them eventually run out of time for analysis of the future and activity plan creation. The instructor can regulate the time used for the diagnostic map by introducing the MIO matrix as a way of halting discussions, and then converge their findings into the matrix scheme.

It is also common for value judgments to appear in the diagnostic map with statements such as "We are very competitive." Try to keep the diagnostic map as descriptive as possible, because value judgments carry embedded conflicts and wishful thinking. The use of quantitative depictions, such as charts, diagrams, and tables, has the advantage of both saving space and being more descriptive than normative. A good conclusion for the diagnostic map is to end with the present company mission and the current business concept.

The opportunity map is the most extensive map process. It detects key relationships between the environment and the internal capabilities of the organization. It is also the most involved and time-consuming map and, as a side effect, effects students to discover sources of readily available information for environmental analysis. Consequently, while too much time impedes progress during present business investigation in the diagnostic map, it is a better judgment at the opportunity stage to spend considerable time on available possibilities. Often, this project takes half of the time available for MIO mapping. At the end of this map, a good conclusion of its contents is supported by the SWOT-analysis concept.

If reasonable and actionable alternatives emerge from the opportunity map, suggesting a strategic action takes little time. Still, it is a critical decision. In this phase, students frequently confuse the importance of a choice and the urgency and time-consuming characteristic of the choice. It is also common that groups begin to concentrate on one of the possible opportunities and that the reasons for choosing or rejecting other alternatives remain implicit. Hence, it is important to train the groups' perceptions that there are commonly several possible strategies and to use the assessment techniques with explicit criteria for the final choice. The summary of this phase results in a new mission statement, a new business model, and the formulation of long-term objectives for the firm. The instructor may also have to address a deeper comparison to competing alternatives on the market.

The CRM map includes forming a project team to implement short-term actions. A common lapse we find is that less experienced and less involved students tend to make simple CRM maps with comparably few variables. More advanced CRM maps include some degree of complexity and introduce variation in the activity programs. In the optimal form, there is a timeline of activities for different segments. Campaign resources are evaluated against desired effects in cognitive, affective, and behavioral terms in the chosen market segments. A guideline for the CRM map is about 25% of the time budget, since action plans are described in detail.

To augment the view of the students and encourage further study in marketing, we introduce students to different business contexts requiring new concepts and models for the best

solutions. While the first phase of the course is defined as *marketing in a nutshell*, the third phase gives the students insights into the complexity of marketing. For example, a service offering is different from offering a good, a profit market contrasts a nonprofit market, and a domestic market demands other considerations than a global market.

Last, we find there are sociological and psychological aspects included in a course approach of this nature. Mento, Martinelli, and Jones (1999) furnished a description of how teamwork functions as laboratories in education. Another aspect to consider is the equity between the energy expended by a group in creating solutions and the effect on assessing those solutions. Critical thinking is an important part of the value creation, and students must develop their skills to formally critique their ideas using established criteria (Titus 2000). Usually, the instructor will need to spend more time in stimulating good critical assessments than creative discussions. Consequently, we find it useful to outline a pronounced distinction between the creative stage and the evaluative stages of the process. Creative solutions often evolve in a chain of suggestions, but at the end only a few ideas are profitable in a competitive business environment.

FUTURE RESEARCH

Learning marketing is a holistic process. It is a process of gaining skillful knowledge composed of many variables. The approach of using a combination of matrixes and maps with creativity and assessment techniques is developed from an understanding of the learning process, both how students learn and factors involved in the learning environment. Thus

far, we have performed traditional course evaluations in developing our approach to marketing management. We feel that our conceptual approach is ready for more rigorous tests. Our experience is this is a more motivating way to learn for MBA students, because the course material is empirically founded in the group experience. For undergraduate students, more research must be undertaken to find the appropriate complexity in the approach, specifically the optimal way to use CATs. Yet, we hypothesize, participants using this approach exhibit a higher degree of actionable knowledge, exhibit a greater awareness of practical outcomes of various actions, and are more creative in finding new solutions than students in a traditional, linearly built marketing course. Torrance (1988, 1990) has suggested methods for such tests.

Challenges of the future are to integrate creativity into Web-based courses and apply more multimedia tools. E-learning portals, such as Blackboard or First Class, are rapidly integrated into many learning schemes. The question is how the Internet supports not only information and administration of a course but also *interaction*, which is seen as a key activity for creative behavior. Several computer programs, such as Mind Manager, Visio, Inspiration, and even PowerPoint, support digital map creation.

In our persistent curiosity, we strove forward to reincorporate the concept of creativity to learning marketing education principles. The CDC course construct provides a platform to develop creativity in learning marketing and in critical thinking. Along the way, we were compelled by a deeper appreciation of the students asking us ever-tougher questions of ourselves as educators and by something we feel is part of the fundamental journey: to be continually beginning.

APPENDIX Course Syllabus

<i>Moment</i>	<i>Activities</i>	<i>Outcomes</i>	<i>Specific Information Base</i>
Introduction	Student presentation Discuss learning processes	How is this course run? (see Figure 2) What will we learn? (both content and process)	Videos: <i>Cat herders/intercity</i> (commercials, 2 minutes)
Phase 1 Convergence			
Discover concepts	Prereading cases/articles Retrieve key concepts List on blackboard/overhead	Identify key concepts (for example, segments, brands, and SWOT) Identify key decision steps (for example, strategy and actions)	Video: <i>What's Wrong?</i> (15 minutes) Brief cases/articles/links
MIO matrix	Discuss concepts Structuring of key concepts in matrix	A business/marketing plan forms: the MIO Matrix (see Figure 1) Place identified concepts into the MIO matrix	
Understand the concepts	Textbook readings	Understand concepts identified in "discover concepts" and "MIO matrix" steps	Textbook (for example, Kotler 2003b; Lamb, Hair, and McDaniel 2002)
Quiz	Individual questions and answers	Understand concepts identified in "discover concepts" and "MIO matrix" steps	
Phase 2 Divergence			
MIO maps	Mind map practice	Practice mind map technique Describe basic structure of MIO maps	Buzan (2002) mind mapping
Mistakes and successes	Lecture: showcase and presentation of case to-do	Identify marketing opportunities and threats	Ricks, Big Business Blunders Hartley, Marketing Mistakes
Information search	Discover information sources	Knowledge of library and information search procedures	Book on information searching Library session
Creativity—A	Lecture and seminars	Identify creativity perspective Try creativity techniques Identify barriers to creativity	Rollof (2001) and De Bono (on creativity; De Bono 1999) http://www.mycoted.com/creativity/techniques/ (Creativity Techniques n.d.)
Creativity—B	Information search Brief oral presentations	Identify "creative" persons and their traits	Internet Biographies
Diagnostic map	Group work Class presentation	Diagnostic map application	Case information Summary (see Table 1)
Opportunity map	Group work Creativity seminars Class presentation	Opportunity map application	
Phase 3 Convergence			
Lessons learned	Student presentations of reports	Marketing plans for cases	
Assessment techniques	Lecture	Learn assessment techniques	http://www.mycoted.com/creativity/techniques/ (Creativity Techniques n.d.)
Assessment seminars	Seminar and discussants Critical assessment of marketing plans	Critical assessment techniques Critical issues in marketing	
Lessons learned	Course summary Compare first MIO matrix to the one that builds in this concluding phase	Overview of concepts, techniques, and course process/learning process MIO matrix with course concepts	

NOTE

1. Tabula rasa, essentially "blank slate," is developed from the philosophy of John Locke and implies either a mind before receiving impressions gained from experience or, in another way, a need to start from the beginning of something.

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