Management Academy for Public Health: Program Design and Critical Success Factors

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The Management Academy for Public Health is a team-based training program jointly offered by the School of Public Health and the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill. This 9-month program teaches public health managers how to better manage people, information, and finances. Participants learn how to work in teams with community partners, and how to think and behave as social entrepreneurs. To practice and blend their new skills, teams develop a business plan that addresses a local public health issue. This article describes the program and explains the findings of the process evaluation, which has examined how best to structure and deploy a team-based method to create more effective, more entrepreneurial public health managers. Findings indicate that recruitment and retention are strong, program elements are relevant to learners' needs, and learners are satisfied with and value the program. Several specific benefits of the program model are identified, as well as several elements that support business plan success and skills' application on the job. On the basis of these findings, four success factors critical for developing similar programs are identified.

KEY WORDS: action learning, evaluation, management development, managers, public administration, public health, training

The Management Academy for Public Health is a team-based training program that has been jointly offered by the School of Public Health and the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill (UNC) since 1999.[1] Originally sponsored by the Centers for Disease Control and Prevention, the Health Resources Services Administration, the W.K. Kellogg Foundation, and the Robert Wood Johnson Foundation (the "sponsors"), the program was designed to supplement the many leadership development programs in public health[2,3] by filling the skill gap in managing people, data, and money for managers from four states: Virginia, North and South Carolina, and Georgia. Today, the Management Academy is a revenue-supported program that attracts participants from every region of the country.

The history and vision of the program have been described in detail elsewhere,[4,5] but its basic objectives are simple: to hone the skills of individual public health managers and to enhance their organizations' performance. This article describes the program and explains the findings of the "process evaluation." Process evaluation[6] focuses on which aspects of interventions produce certain results and how, as opposed to outcomes evaluation, which focuses on the results, or products, of interventions. This process evaluation looked at recruitment and retention of the target audience, and analyzed learners' perceptions of the program's relevance, benefits to learners of the design and elements of the program, and factors affecting learners' application of the learning. This process evaluation has been conducted formally, through surveys

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and interviews, and informally, through constant staff observations, throughout the life of the Management Academy. It has been used to continuously improve all aspects of the program, from recruitment and structuring learner teams, to coaching, teaching, and assignment structure. This article details the questions asked by the process evaluation and documents the key data and lessons learned.

Management Development in Public Health

Many studies have recommended that public health managers receive continuing education and training in management and leadership.[7,8] Few, however, describe such programs or examine their benefits. Setliff et al[9] described success factors in three programs that develop managers and leaders in public health, including the Management Academy, and highlighted the use of team models for training. Porter et al[1] published early results from the Management Academy in 2002, finding that managers reported undertaking many self-development activities and saw skill- and organization-level improvements. Umble et al[10] documented improved management practices and short-term outcomes resulting from a total quality management training program using a form of team training in Vietnam. Many studies examined the impact of total quality management and other forms of management development in healthcare,[11] and have found important benefits including improved motivation, understanding of work processes, work group responsibility taking, process analysis and continuous improvement, and lateral linkages and teamwork across specialized organizational units.

The Management Academy for Public Health: Structure and Methods

The Management Academy for Public Health was shaped by defining concepts, or "frames,"[12] provided by the sponsors and by the UNC. The sponsors stipulated the overarching goals (individual skill development and organizational performance improvements), curriculum foci (managing people, data, and money), required a partnership between a school of public health and a business school, and put forward a program time frame (9 months), cost per person, audience, and output measures (600 graduates). The elements of this frame were informed by the Institute of Medicine's report *The Future of Public Health*,[13] a report by Boedigheimer and Gebbie on developing public health administrators,[14] and other reports completed by the sponsors. The UNC provided an additional set of defining concepts and structures: a team-based learning structure, a focus on civic entrepreneurship,[15–20] and an action-learning[21,22] project that required teams to create a business plan.[23] These elements extended and reinforced the sponsors' defining frames.

The internal evaluation performed by the UNC concentrated on process evaluation and quality improvement, while an external evaluation conducted by the Lewin Group (Fairfax, Virginia) focused on longer term outcomes. Both evaluations looked at individual-level (such as assessing whether individuals gained relevant new skills) and at organizational-level changes (such as tracking business plan implementation).

Participants

Participant teams consist of three to six managers, drawn mostly from local public health agencies, but also some from state agencies. The UNC encourages teams to include community partners[24] (such as from a school or hospital, a nonprofit organization, or from another government agency). At least one member of each team must come from governmental public health. A typical team might include a local health department's nursing director, environmental health director, and health education director, plus a community partner.

Team training[25] was seen as a way to enhance organizational improvement. First, teams would help create "critical mass" in a given public health department to improve the likelihood of organizational change.[26] Teams with community partners would create or strengthen a strategic alliances. Second, a team design would facilitate the creation and implementation of business plans. Creating plans would provide a good test of the ability of a team to synthesize and apply skills in managing people, data, and money, and implementing business plans would indicate that a team was making practical use of those skills at work and achieving organizational change.

Program design

The training is carried out in three phases (Figure 1)—a 5-day on-site session in Chapel Hill that launches the program; 9 months of distance learning with a 3-day on-site session in the middle; and a final on-site session at which participants present their team project. During phase I, teams are oriented to the program's mission, goals, and expectations, and they receive core competency training in civic entrepreneurship, managing people, managing money, social marketing, and working in teams (Table 1). In addition to faculty presentations, classes use case studies, small group exercises, and discussion of assigned reading materials on these topics.

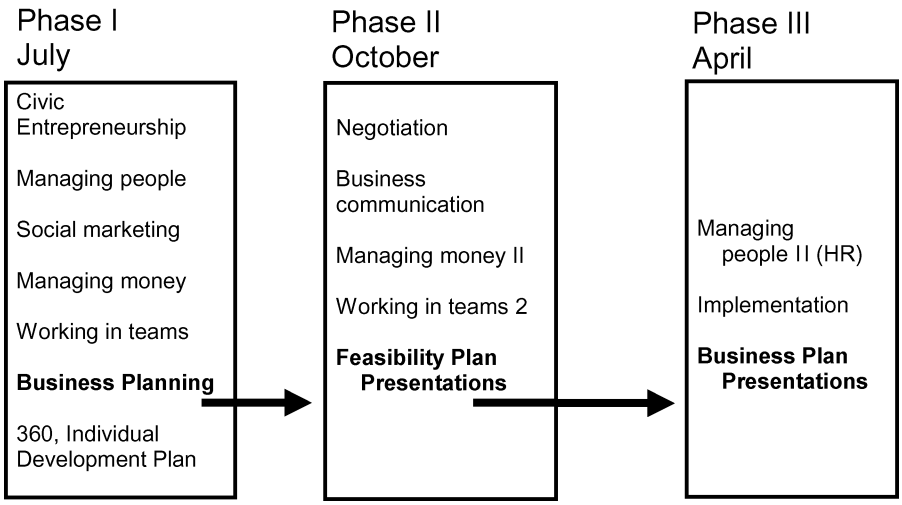

FIGURE 1. Structure of the Management Academy for Public Health.

Most classes are jointly designed by business and public health faculty. Before program launch, individual team members are administered an on-line multirater, or "360 degree," evaluation.[27] Individuals then prepare a "development plan" that establishes two or three specific personal development goals, action steps, and outcome measurements. (They submit these plans, with their outcomes and any "artifacts" of their personal development, at the end of the program.) A key objective of phase I is to introduce the rationale and fundamentals of developing the business plan. Teams get a session on civic entrepreneurship and another on business planning, and they meet with business plan advisors to begin the planning process. The structure and content of these elements reinforce the importance of collaboration.

TABLE 1 ● The Management Academy for Public Health curriculum (2005)

Course	Skills taught
Managing people	Organizing, directing, controlling, and allocating resources, project management
Business planning	Mission, goals, strategies, objectives; strengths, weaknesses, opportunities and threats; stakeholder analysis; needs assessment; business plan development
Human resources	Interviewing and hiring, performance appraisal, value chain
Financial management	Budgeting, financial reporting, cost analysis, financial planning
Civic entrepreneurship	Entrepreneurial strategies for public and nonprofit agencies
Marketing	Social marketing; strategies for diffusing information
Business communication	Writing, formal oral presentations, use of computers for communicating
Partnerships and negotiations	Change strategies; sources of power; negotiation/conflict management skills
Implementation	Strategies for moving from planning to execution
Team building	Managing teams; process improvement; self-awareness and group dynamics

During phase II, individuals begin implementing their Individual Development Plans (IDPs), and teams work on developing their business plans with extensive guidance from their business plan advisor. At the phase II on-site session, participants receive a second finance course and instruction in negotiation and business communications. (The phase II on-site session has also included topical courses in quality improvement, managing information technology projects, evaluation, preparedness, project management, and teamwork). Teams present a "feasibility plan" and receive feedback from peers and coaches. Following this session, teams revise their business plans and submit drafts to their business plan coaches.

Phase III is the capstone of the program. Program participants return to Chapel Hill to present 15-minute PowerPoint presentations of their business plans to other participants and the program instructors, and directors. They receive additional instruction in human resource management, submit their IDPs, have a wrap-up session, and participate in a formal graduation ceremony that includes one or two teams being awarded "blue ribbons" for outstanding business plans.

Business planning project

Figure 2 details the elements in a typical Management Academy business plan.

Definition of project Product/Service description | Customer/Geographic focus | Objectives and measures of performance
Industry analysis Industry structure | Trends | Threats | Key success factors
Target market definition/Research Demographics | Risk groups | Needs assessment | Trends
The Competition Competitors/Partners | Barriers to entry | Future competition
Marketing strategy Message | Media | Market penetration assumptions
Project operations and management Daily operations | Partner roles | Outcome measurement | Quality improvement | Information systems | Human resources | Department/Agency culture
Implementation plan and Timeline
Risks and exit plan Potential risks | Regulations | Long-term development plan | Exit plan
Financial statements/Projections 3–5 years out Statistics budget/Budget assumptions | Capitalization plan | Income statement | Cost per unit | Balance sheet | Cash flow projection | Sources and uses of funds

FIGURE 2. Outline of a Management Academy for Public Health business plan.

After experimenting with informal faculty coaching, the program hired dedicated business plan coaches in 2000, partly in response to the sponsors' concerns that the on-site training in business skills was not sufficient for true "take-home" impact. In this way, ongoing evaluation contributed to program performance.

Logic Model

The program's logic model shows how individual and team development might support the development of more entrepreneurial managers and contribute to long-term organizational change (Figure 3). Several factors beyond the content and type of instruction affect the level of impact the program can have on a particular individual or organization. Such inputs include the broader social, economic, and political context in which both planning and program implementation are anchored; support for change in state and local health departments; and funding levels to participants' organizations. Inputs related to the program itself include the quality of collaboration between the two schools; quality of program faculty and staff; funding of the program; and recruitment strategies of the program. These inputs determine the quality of instruction, which, in turn, influences program participants' knowledge, perspectives, confidence, and skill levels. The intellectual capital that participants acquire shapes their ability to design and implement effective IDPs and team business plans.

Process Evaluation Questions and Methods

The evaluation of the Management Academy was guided by the following questions:

1. Was the Management Academy able to recruit and retain its target audience, and if so, what factors helped?
2. Were the curriculum and business plan assignments relevant to participants' jobs and agencies?
3. Were the participants satisfied with the program, overall?
4. Did participants value the team model and the business plan assignment?
5. What were the benefits of the team model for management learning?
6. What factors shape teams' ability to write and implement business plans?
7. Do public health agencies support learning and skills application?

Several methods were used to gather the data required to answer these questions. Participants evaluated each on-site course with a questionnaire that asked about course content, instructional methods, and contribution to learning. At the end of each on-site program, participants completed surveys that included items about the program pace, content, process, and context. These data were augmented with qualitative data collected via interviews and focus groups with participants, staff, and faculty.[28] IDP reports, business plan

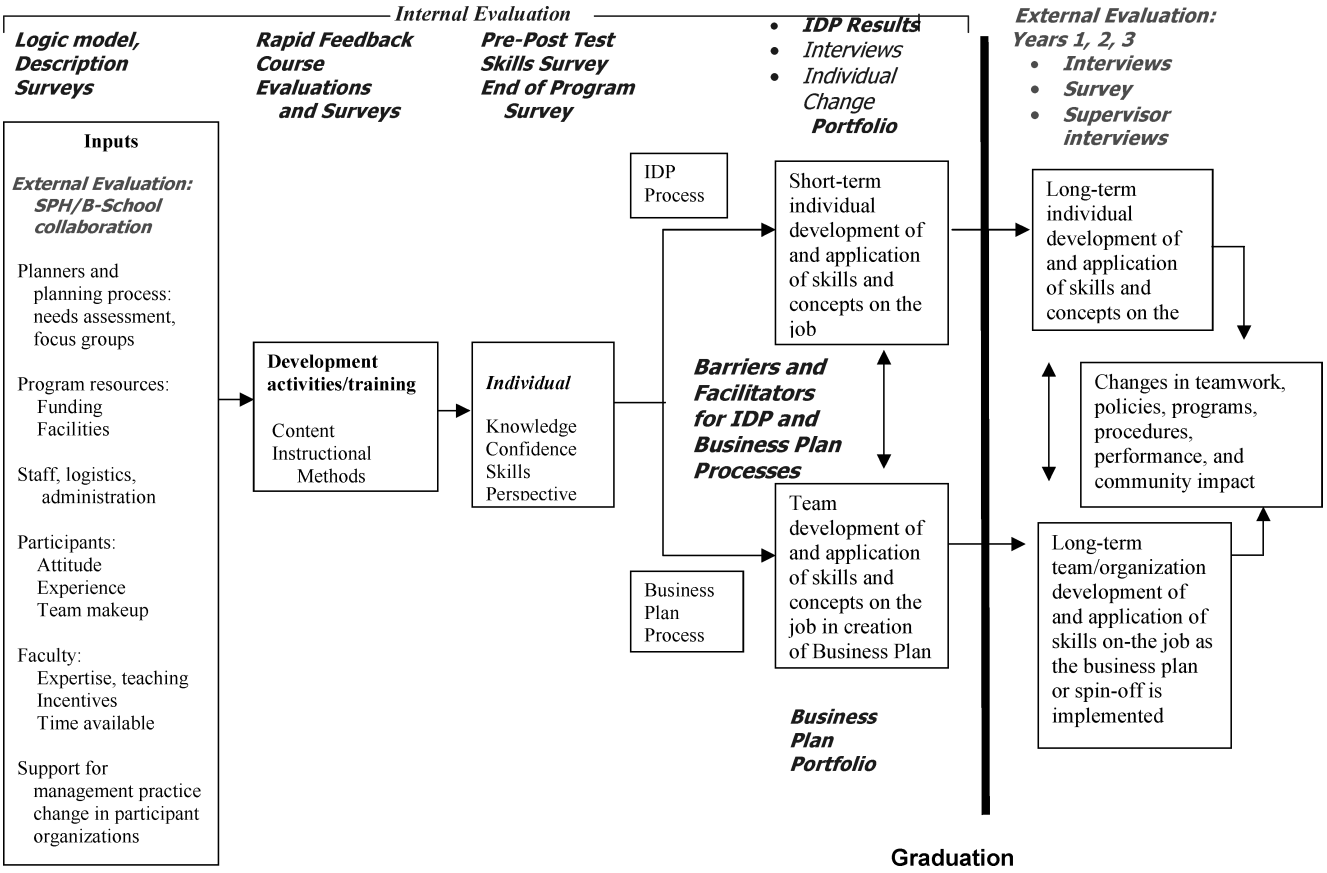

FIGURE 3. Management Academy for Public Health program and evaluation logic model. IDP indicates Individual Development Plan.

reports, and team presentations represent a final set of data.

Descriptive statistics were compiled from the surveys using a standard statistical analysis package. For the qualitative data gathered in interviews and focus groups, thematic analysis was used to identify common themes.[28]

Results

Recruitment and retention are strong and aided by state contacts and team model

Recruiting and retention are key indicators of the relevance and perceived worth of a training program.[29] By enlisting the state deputy directors of public health in the four original target states to promote the program among local health directors, the target of 600 enrolled local and state public health managers was easily met in 4 years. Also, state and national public health associations have helped distribute promotional messages, which have been a valuable addition to the program's own promotional messages. The pilot programs being fully funded by the four original sponsors also helped with early recruitment, although many agencies and states have been willing to pay for the program since the pilot ended in 2003.

Retention rates are strong. Over the first 7 years that the Management Academy has been offered, the team retention rate is 96 percent, and the individual retention rate is 93 percent.[30] Interviews and experience have shown that teams help individuals to remain engaged in three primary ways. First, individuals are more engaged if they believe they are working on feasible projects with real benefits. Second, team training enhances and draws upon work-related social bonds, which (often) have intrinsic rewards, make it difficult for individuals to quit, and encourage team members to cover for one another if necessary. A third key factor is that many individuals—almost 40 percent as of 2006—pay extra for course credits and have a strong financial incentive to complete the program.

The curriculum and business plan assignment are relevant to participants' jobs and agencies

Being interested in training content and motivated to apply is expected to improve learning and application on the job.[31,32] Participants found the curriculum

TABLE 2 ● Relative strength of participants' motivations to attend the Management Academy ($n = 200$ for years 2 and 3, $n = 111$ for year 4)
Question: To what extent did each of the following reasons influence your enrollment in the Management Academy?

Item	Participants rating the influence as considerable or strong (%)*
I was interested in improving my management skills.	92
I was interested in improving our agency's community impact.	82
I have a general interest in management as a topic.	82
I was interested in improving our agency's internal functioning.	56
I wanted a chance to network with other managers.	30
I wanted to confirm that what I was already doing was correct.	29
The academy was suggested to me and I thought I had to say "yes."	13
I was required to come to the academy.	56

*Participants' rating: 1 = did not influence me at all; 2 = influenced me a little; 3 = influenced me considerably; and 4 = influenced me very strongly.

relevant to their agencies and work. When asked to rate several possible reasons for participating, interest in the content, in improving their management skills, and in bolstering agency impact on the community and internal functioning were high. Being "required to come" was a major reason for only a few learners (Table 2).

Moreover, all courses in the three general curriculum areas (People, Data, and Money) were consistently rated at or above "4" on a 5-point Likert-type scale for relevance ("The skills taught in this course are relevant to my job") and intention to apply ("I intend to apply the skills taught in this course to my job"). Only very rarely did a particular course in a given year score below "4" for either question. In general, courses related to managing people rated more highly than courses on managing data or finance, which may reflect the fact that virtually all participants manage people, while not all are responsible for data or financial management. These findings of perceived relevance endorse the quality of the needs assessment in finding out what learners believe they need.[29] Some participants report finance content to be irrelevant to their current jobs because they do not control a budget. A fundamental tenet of the program, however, is that entrepreneurial managers must understand basic finance to function effectively, and a key goal has been to change beliefs that only business managers and directors should be concerned with budgets.

TABLE 3 ● Intention to implement the business plan at graduation year 2 ($n = 161$), year 3 ($n = 143$), year 4 ($n = 83$), year 5 ($n = 74$), and year 6 ($n = 47$)
Question: My team intends to implement our business plan (or a version of it).

Response	Year 2	Year 3	Year 4	Year 5	Year 6
Yes—overall	83%	85%	66%	86%	87%
Yes—we have already begun	NA	NA	NA	44%	32%
Yes—we plan to but have not actually begun yet	NA	NA	NA	42%	55%
No	0%	<1%	4%	3%	8%
Not sure	17%	15%	28%	11%	4%
No answer	. . .	. . .	2%	. . .	. . .

*NA indicates not asked.

On the basis of these findings, one of the factors that causes participants to be highly motivated to produce excellent business plans (and learn the required skills) is that for almost all teams the plan is "real"—they intend to implement it to address an issue of concern to them—rather than a classroom exercise without practical application. This observation is bolstered by data on intentions to implement the plans (Table 3). In most years, 83 percent or more of teams reported at graduation that they planned to implement their plans, and in years 5 and 6, 44 percent and 32 percent of teams, respectively, had already begun implementing the plans before the program had ended. These findings suggest that the business plan project is relevant and the skills applicable to the real world of public health management.

Overall, learners are satisfied with the program

Retention and perceived relevance data imply that learners are satisfied with the program overall. More evidence of satisfaction may be found in the data presented in Table 4, which shows that more than 95 percent annually would recommend the program to colleagues, that most believe they are better managers as a result of the program, and that their gains have been worth the extensive time invested. This percentage of "recommenders" may also help explain the continued popularity of the program, even beyond the grant-funded pilot.

Participants value the team model and business plan assignment

High percentages of participants agreed that preparing the business plan had helped their learning, that teamwork had improved in their work unit, that they

TABLE 4 General reactions to the Management Academy for Public Health (MAPH) program, years 2 to 6, from questions asked at the May graduation on-site program*

Item	Year 2	Year 3	Year 4	Year 5	Year 6
I would recommend the Academy to colleagues	95	94	96	94	97
I am a better manager as a result of MAPH	. . .	. . .	. . .	86	100
As a result of MAPH, teamwork has improved in our unit	79	82	82	76	84
As a result of MAPH, I will be a more effective team player	. . .	. . .	. . .	90	97
The gains I have received from this program have been worth the time I invested	. . .	. . .	. . .	93	97
Preparing the business plan helped my learning	. . .	98	95	. . .	. . .
As a result of MAPH, I find myself thinking more like an entrepreneur, looking for creative ways to raise revenue for programs	. . .	. . .	. . .	81	87
I gained more from MAPH because it was a team-based program than I would have gained if I had taken MAPH as an individual	. . .	. . .	88	. . .	. . .
My supervisor supported me in applying MAPH skills to my work	. . .	. . .	. . .	87	82

*Values given are percentages of participants indicating they strongly agree or agree with the statement, on a 5-point Likert-type scale, with 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree. Cells with no values (. . .) indicate questions not asked in that year. None of these questions were asked in year 1.

would be more effective team players, and that they had gained more because the program used a team model than if they had taken it as an individual (Table 4). Because it reinforces virtually all of the skills in the Management Academy, the business plan is a vital part of individual skill development in the program.

Several focus group interviews with participants sought detailed perceptions of the team aspect of the Management Academy. Every individual in these groups endorsed the team model over a hypothetical individual-based program. These interviews reinforced the belief that the business plan project as currently conceived would be too much for an individual to complete.

Several specific benefits of the team model were identified

The Management Academy experience and focus group data[30] suggest several benefits of team training. First, team members help each other master skills, mainly through the business plan activity, but also often through helping one another address individual challenges. Second, accountability to the team gives participants a shared, public agenda, which makes individuals work harder, and at the same time provides a safe place to take risks, practice business skills, and get feedback. Also, the team model mirrors the work world, reflecting the reality of many organizations, pointing toward best practices for organizations, and providing skills transferable to other teamwork situations. On a practical note, the team model enables participants to press ahead when one participant cannot contribute and allows individuals to continue the program even if they encounter a temporary barrier. Finally, the team process connects community partners to public health agencies, supporting a fundamental tenet of the Management Academy, that cross-disciplinary partnering is essential to successful public health initiatives. The sustainable strategic alliances with community partners encouraged by the program strengthen both entities and build support for public health in the wider community.

Natural teams, advising, organizational support, and partners help teams write and implement business plans

External evaluation findings from the first 3 years of the Management Academy found that 40 percent of business plans were actually implemented.[33,34] As might be expected, many barriers to implementation exist. How the team was selected, including especially whether the team included a community partner, was a key factor shaping whether teams later implemented their business plans. The external evaluation found that many teams with community partners were able to implement innovative business plans, since the partner organizations had more flexibility than governmental organizations in the kinds of fundraising and business arrangements they were able to construct. Other correlations with successful implementation related to team selection include that teams were more likely to implement the business plans if team members had a prior working relationship, if they were already a natural team interested in working on the issue, or if they simply had organizational positions that made them a suitable and logical team. These factors enable teams to coalesce more rapidly and reduce logistical barriers to collaboration. When the external evaluation asked

graduates to cite barriers to implementation, key factors were lack of time (74% of respondents), lack of funding (72%), and lack of staff (70%). Only 19 percent cited a lack of support from agency leaders and supervisors, and 9 percent cited problems working with the team.[34]

The internal evaluation[30] also found that teams are more likely to produce a quality plan and implement it if they include some experienced managers; they are interested in the same problem or health content area (or) are members of the same organization's management team and can find a problem of concern to all; and they have the support and sponsorship of their organizational leadership. Including some experienced managers—rather than all young and inexperienced people—provides internal support to lead the team, coach other team participants, and connect the team to supportive leaders. If all team members are involved with the same public health content area, such as mental health, they are more likely to work hard, make sure that they attend meetings, and solve problems that arise. This factor was sometimes more important than working in the same building, or even county. Problems in organizing a coherent project would be expected if the team consists of specialists from several different levels and areas without much overlapping interest.

Management Academy teams are called "organic" or "natural" when they are concerned about the same issue, or when they are preexisting teams (such as management teams) from the same organization that can easily find a topic of common interest. This is in contrast to "artificial" teams without a long history, few overlapping issues, and no natural reason to work together besides the training itself.[30]

Business plan "coaching" or advising, formally instituted, as stated above, after the first year, is also a key element supporting Management Academy teams as they complete their business plan projects back at their home organizations. Management Academy team advisors are MBA-prepared business plan consultants based in the business school's Kenan Institute. A number of doctoral students in the university's Public Health Leadership Program students have functioned in the coaching role as well.

Participants now evaluate advisors twice each year with a short form asking for comments and ratings on timeliness and helpfulness; these data have been used in managing and rehiring advisors. Business plan advisors have received high ratings from program participants.

The advisors help teams with all aspects of their plans, communicate high standards, and keep teams on track with routine feedback and a series of deadlines. The ability of the advisors to push teams to apply revenue-generating models has sparked more innovation, entrepreneurial thinking, and skill development than that occurred with only classroom instruction, according to interviews with learners.

Most agencies support skills application on the job

State health departments understand the value of business thinking, having worked under tough budget constraints for several years. Participating states have supported the emphasis on creativity, entrepreneurship, and business planning in the Management Academy curriculum since before the program was launched. Findings indicate that this support at the conceptual level translated into support for the practical application of these perspectives in the workplace. Most participants indicated that their supervisors supported them in applying the skills acquired through Management Academy in their work (Table 4). As noted above, only 19 percent of participants cited lack of support from agency leaders and supervisors as a barrier to implementing the business plan. Exactly what some teams did with their business plans, and further details of the external (outcomes) evaluation of the Management Academy, are described in more detail elsewhere in this issue.[35–41]

Critical Success Factors

These results validate the initial assessment findings that public health managers and their agencies need, want, and support management training and that the Management Academy model is a good one for this audience. On the basis of these results, four factors may be identified as critical to the success of programs that attempt to provide management training that is relevant, valued, and effective at making long-term improvements to individual and organizational performance: (1) undertake comprehensive needs assessments and use that data to customize programming; (2) organize the learners into teams; (3) assign an action-learning project that consolidates skills and will be useful to learners after they complete the program; and (4) focus the training on an abstract concept (in this case entrepreneurial thinking) as well as concrete skills.

Undertake comprehensive needs assessments

On the basis of the literature, focus group surveys undertaken by the sponsors, and input from state public health leaders in the pilot program's four target states, Management Academy program planners knew the needs of public health managers, and the program was designed with these needs in mind. Furthermore, continuous process evaluation gave planners clear direction about how to improve the program for learners.

Having a solid foundation of clear, consistent internal and external feedback has allowed program planners to avoid disagreement about how best to implement and run the Management Academy throughout its life.

Organize the learners in teams

The team model is a feature valued by Management Academy learners and attractive to potential participants. Moreover, the team model facilitates the business planning assignment, which would be too extensive for most individuals to develop or implement on their own. "Natural" teams—those interested in the same topic and/or already working together—are usually most successful. Business plan advisors working with teams greatly improved skill development, learning, and business plan quality.

The team design does impose limitations on the program's target market. One limitation is based on organizational size. For some counties in rural areas, a team of four may represent the entire staff. Furthermore, each year, some individuals who want training cannot recruit colleagues for a team. And the corollary of the finding that teams can support each other's learning is that one difficult or unsupportive teammate may negatively affect learning and project outcomes for others. It may have been possible to teach managers how to manage "data, people, and money" within a more traditional paradigm; business schools across the country have executive management programs for individuals, for instance. In this case, team training enabled the business plan project that efficiently and effectively synthesized a variety of management skills in an easily evaluated product and helped some teams produce a long-lasting effect on their organizations.

Action learning

Having an action-learning project makes the training concrete to learners. For the Management Academy, a business plan is the obvious type of project to hone management skills and provide real benefit to organizations. By definition, projects would differ for programs with different goals. For instance, Cumbey and Ellison describe a tabletop exercise or a mass casualty plan that are used to make concrete the skills taught in the South Carolina Academy of Public Health Emergency Preparedness.[39] Other programs could conceive of other projects relevant to their goals.

Focus on abstract concept as well as concrete skills

The Management Academy for Public Health is not merely a business plan incubator: the goal of the program is to generate entrepreneurial managers and organizations that, having written one business plan, will go on to write more (see, for instance, Jeff Wilson's article in this issue[42]). Teaching "entrepreneurial thinking" ties the concrete skills required by the sponsors to a more holistic way of thinking about what public health managers do and have the potential to accomplish. The risk in staying only at the concrete level is that learners might leave with a grasp of discreet skills, but no sense of why they should use them, and no expansion of their thinking about possibilities. The goal of the Management Academy is not to generate business plans but to create managers who know how and when to generate business plans. The sum of the skills taught at the Management Academy is greater than the parts.

The entrepreneurial focus on partnerships and revenue generation does create difficulties for some organizations. Government agencies are generally conservative and resistant to change. Teams from the more conservative organizations still obtain concrete, useful skills in managing people, data, and finances, but may experience political or systemic barriers to the idea that grants and public funding cannot continue to support all the effort necessary to assure a healthy public.

Overall, however, public health managers and organizations are responsive to the Management Academy's entrepreneurial lessons, successfully completing entrepreneurial plans and then transferring the lessons learned to the workplace in a variety of ways. This program demonstrates that entrepreneurial thinking and skill can productively be taught to public and nonprofit managers.

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