Implementing the BILT Model of Business Engagement

A Guide for Strengthening Industry Commitment for Technical Programs

Background

Almost all community and technical colleges are required to hold business advisory committee meetings annually or twice annually to obtain business input on their associate of applied sciences programs. However, these meetings could often be described as "rubber stamp" events during which faculty tell business members what they are doing in the program rather than asking business members what they *should* be doing in the program. This one-sided approach often results in graduates whose skills are not best-aligned with business need and therefore not as employable as they could be.

The Business & Industry Leadership Team (BILT) model, originated by the National Science Foundation Convergence Technology Center of Excellence based at Collin College, puts businesses in a co-leadership role for college technical programs so they have direct input into the knowledge, skills, and abilities (KSAs) that program graduates should possess 12-36 months into the future, therefore, producing candidates the businesses are much more likely to hire. Because the BILT members must be Subject Matter Experts (SMEs) to truly know what KSAs are needed, each BILT must focus on a single sub-discipline rather than all the programs in a division. Though it is not essential to call your new and improved business advisory committee a BILT, doing so can help signify to employers, faculty, and administrators the importance of the group's shift in mission and process.

Business engagement is also improved if the process used by the BILT for evaluating the KSAs is structured, including both discussion of and voting on each of the KSAs. A structured process removes much of the subjectivity that can occur when the KSA evaluation relies totally on discussion.

Benefits of a BILT

Implementing a BILT is a win-win-win—for students, faculty, and BILT members.

For Students:

- Likely to be sought after by BILT members because businesses feel ownership of courses, certificates, and degrees.
- First to be considered for opportunities such as internships, even before they complete the program.
- Have ready access to BILT members as mentors.
- Likely to have opportunity to attend workshops delivered by BILT members on topics such as interviewing skills, resume writing, and "a day in the life," etc.

For Faculty:

- Faculty have assurance they are teaching the competencies businesses want future employees to possess.
- Faculty benefit from BILT members serving as guest speakers or assisting with recruitment events, on-campus and off.
- Faculty learn about industry trends from BILT members in time for curriculum adjustment because of trend-focused meetings.
- BILT members often provide free or reduced-cost professional development for faculty.
- Faculty often are asked to participate in externships sponsored by BILT members

For BILT Members:

- Their pipeline of "workforce ready" job candidates is increased.
- They develop professional relationships with other BILT members and with the college.
- They have an opportunity to give back to their community in a way that makes a tangible difference.
- They know that their time is valued.

Essential Elements of a BILT

- The BILT and its business representatives must focus on a single sub-discipline (e.g. cybersecurity) rather than focusing on all the programs within a division at the same time. This means BILT members must be SMEs in the sub-discipline.
- The BILT must use a structured voting process rather than just open discussion to evaluate program KSAs.
- Businesses must co-lead program development and receive specific feedback from the college regarding how it implemented the KSAs that the BILT prioritized.
- Faculty must buy into the BILT model, believing that their program will be stronger when businesses co-lead the work, even though faculty will still "own" the curriculum. Faculty must cross reference the BILT-prioritized KSAs to existing curriculum, update curriculum to address KSAs needed by businesses, and provide businesses with feedback regarding implementation.

The BILT is most effective if it meets 3-4 times per year. One of those meetings should be a longer face-to-face meeting focusing on the KSA evaluation process (including KSA voting and discussion). The other meetings should last 60-90 minutes and can most likely be accomplished through web meetings. These shorter, more frequent meetings will focus on business feedback and a discussion of industry trends, allowing faculty to begin thinking about changes on the horizon for the discipline so they can begin planning for curricular adjustments.

Identifying the Right BILT Members

- BILT members must be technical SMEs for the sub-discipline to be addressed.
- Examples of effective members include:
    - High-level technical executives (strategists) who are responsible for evaluating future technologies for their companies so that they can help the college anticipate changes
    - First-line hiring managers who are aware of the KSAs they currently need their employees to have as well as the challenges they face
    - Technicians currently doing the job represented by the sub-discipline

  Human resources professionals may be part of the BILT as long as they are not the sole representative for a company. (Human resource staff receive their KSA knowledge from hiring managers; therefore, their knowledge of the sub-discipline is second hand.)
- Ensure department faculty understand and are engaged in the BILT member selection process. Faculty are sometimes apprehensive about the BILT "co-leading" the work. In reality, faculty retain control of the curriculum but use the BILT's prioritized KSAs and discussion to guide curriculum updates.
- Identify existing or potential employer partners for the BILT and gather contact information in preparation for sending meeting invitations.

Approaches for Beginning Work with a BILT

How the BILT model is adopted and adapted will vary by college, community, and industry sector. Quarterly meetings allow the BILT to get and stay engaged with the college team much more so than an annual "report out" dinner. We described the basic structure for the annual meetings above: one KSA analysis meeting that is 4-6 hours, and two to three additional meetings that are 90 minutes or less. The order in which you hold these meetings will depend on local factors, including whether or not you are transitioning from an existing advisory committee or building a BILT from scratch. Eventually, it will be extremely important to hold a KSA analysis meeting with your BILT; however, it may be more practical to begin with a focus group of new BILT members and a conversation around how they envision "co-leading" your program. For example, one college that adopted the BILT model for a program in advanced manufacturing started by gathering members for a formative discussion. During this discussion, employers were asked to comment on their most critical needs. In this case, the local need was for a broader pipeline of potential hires. The BILT was initially more interested in working on recruitment into the existing program than they were in modifying the KSAs for the program. This BILT will eventually conduct a KSA analysis meeting, but its variation on the sequence of meeting types demonstrates the importance of listening to your employers and structuring the BILT's activities to address what is most important to meet their needs.

Preparing for Your First BILT Meeting

Logistics:

- Determine the date for the first meeting and reserve a room. For face-to-face meetings, an 8:30 am start time on a Tuesday, Wednesday, or Thursday often works best because business representatives can come directly to the meeting rather than trying to extricate themselves from their offices in the middle of the day.
- If you are meeting in person, ensure catering will be available for a meal or snacks. Quality food sets a positive tone and keeps participants focused on the work, not their hunger level!

Drafting Invitations

- Review BILT invitation templates for possible use.
- For your first meeting, plan to mail printed and hand-signed invitations in envelopes with stamps so the invitation stands out and is likely to be opened. Email is too easily ignored by individuals not yet familiar with your program. Once your BILT is well-established, email communication can be the most effective.
- In the invitation:
    - Identify the value proposition (What's In It For Me - WIIFM) for BILT members. The value to each business representative may differ; some may want to have an improved pipeline of candidates for open jobs, while some may want to retrain their workers, etc.
    - Be clear that a meal or a snack will be provided. (Quality food will improve any meeting.)
    - Ask invitees to RSVP to a person who can track responses.
    - Advise the invitees that someone from the college will follow up to answer any questions.
    - In your initial invitation to a potential member, include an outline of a BILT member's basic involvement over the course of a year, including minimum time commitment expected. Explain that the BILT meeting at which the KSA analysis is conducted is **usually 4-6 hours** and occurs annually. Additionally, **2-3 other virtual meetings** are held during the year, each approximately **60-90 minutes** to provide feedback to the BILT on curriculum implementation, and to discuss other subjects such as industry trends, internships, helping students in mock interviews, etc. A 10-hour contribution annually is a good estimate to provide potential BILT members. Involvement in other opportunities can come over time.

Typical Agenda for Virtual Meetings:

- Faculty feedback to BILT (on curriculum changes made in response to KSA analysis)
- BILT feedback to faculty (on anything they've already advised and new things that have come up since last meeting)

- BILT members' discussion of future industry trends so that curriculum can be adjusted well in advance
- Ad-hoc committee updates on special issues, annual strategic priorities, etc.

Leadership of the BILT

Because the main premise of the BILT involves co-leadership, it is a good idea to select a business chair who will co-lead the meetings along with the person leading on the education side. Typically, this chair is not chosen before the first meeting, because the entire BILT needs to learn the roles and responsibilities of the BILT. Further, the educational co-chair needs to ensure that the BILT co-chair is a person in a position within his or her company that is aware of future trends as well as current hiring requirements.

The BILT co-chair should typically be selected when the educational co-lead is familiar with the initial BILT members and can see which one has the time to give and is naturally a leader among the BILT community. And, there is no real hurry in choosing this person. It may take a few meetings for the leader to become apparent. It is a good idea to allow the educational lead to select the BILT co-chair so that the working relationship does not contribute added stress.

At the point the potential BILT co-chair has been identified, it is important to privately ask this person if he or she is willing to take on the extra responsibility for approving the agenda prior to each BILT meeting, co-leading the KSA analysis, and identifying trends for the virtual meetings (or finding others on the BILT who are willing to identify trends each time.) He or she will likely already be at the KSA analysis face-to-face meeting, so no additional time should be required. With respect to trends, though, the commitment could take additional time, and it is important that the person commit to providing the trends.

Preparing for a KSA Meeting

An important annual role for the BILT is to conduct a job skills validation of basic Knowledge, Skills, and Abilities (KSA), a process that originated in the US Air Force. The KSA analysis process was first used in the 1990s at Richland College and then at Collin College in 2003. It is a modified DACUM process that takes 4-6 hours and can be used for any technical program, at any size college. The process has been used successfully in rural colleges in Nebraska, Iowa, Arkansas, and South Carolina, and in urban college districts in Arizona and Texas. It is possible to reduce the number of hours devoted to the KSA analysis meeting, but the total number of KSAs analyzed should also be reduced if this choice is made.

The KSA meeting relies on discussion and a voting process, and both parts are equally important. It is important to resist the urge to send out the KSAs via email and ask the BILT members to rank the items. Experience has shown that discussion only happens synchronously, not through emails. Further, those who view and rank the KSAs prior to the meeting can feel that they have already done their work and may decide that their attendance at the meeting is not needed.

The information that follows is a detailed timeline of activities to help you prepare for a KSA analysis meeting.

3 Weeks Before

- The invitation letter is sent to the BILT, requesting RSVPs; printed letters are preferred, at least initially, because employers can easily ignore email, or messages from unfamiliar senders can end up in SPAM folders.
- Email invitations to all faculty in the department or just the faculty in the sub-discipline, depending on the size and scope of your departmental team. You may also want to consider inviting the appropriate dean, vice president, and even the president to give them an opportunity to learn more about your work.
- Invite faculty from support disciplines like Math, English, Speech, etc., as appropriate.
- Secure A/V equipment including a projector.
- Provide web meeting access to the face-to-face meeting, if possible, so those who cannot attend in person may phone in and/or view the meeting via web. It helps to have screen sharing capabilities to display information for discussion; meeting software such as "GoTo Meeting," "WebEx," and "Zoom" have this capability.
- Secure catering; arrange for water, coffee, and meals/snacks.
- Reconfirm the room reservation and arrange for room set-up. (Typically a "U" within a "U" plus a refreshment table and a registration table. The inner "U" is for the business representatives, and the outer "U" is for the faculty. The room arrangement may need to vary depending on the room size or shape. At minimum, the business representatives need to sit around a "U.")
- Invite/confirm a person who will be the recorder to tally votes.
- Invite/confirm a person who will be the minute-taker. (This individual can also staff the registration table, but cannot be the recorder.)
- Arrange for the meeting to be recorded, if possible, as it can be very helpful for producing/clarifying minutes.

Creating the Pro forma List of KSAs

- Create the pro forma list of KSAs and have it reviewed by key campus personnel and at least 1-2 employers for suggested changes prior to the meeting. This initial list is the best guess at the possible KSAs the employers will want. Providing this list shortens the time needed for evaluation.
- Do not assume you know what employers want in graduates; let them tell you.
- Pro forma KSA list is:
    - What faculty think the KSAs should include.
    - A starting point for discussion; business representatives may add, change, or delete items during the meeting.

  - No more than 75-100 items, maybe less. Rule of thumb: 20-25 KSAs per each hour of meeting. (e.g. 2-hour meeting = 40-50 KSAs, 4-hour meeting = 80-100 KSAs)
  - Largely knowledge areas (The Ks from the KSAs), especially in new programs.

Locating KSAs for the Pro forma List

- Incorporate multiple sources of information, if possible.
- Identify similar programs at other colleges and start with the student learning outcomes of the courses within those programs.
- Identify and use national standards, if they exist.
- Involve a small number of employers to help develop pro forma list.
- Use a Google search to find KSAs.
- Note: Skills databases such as O*NET Online are good resources but recognize that they provide static KSAs for existing job titles and are not future-facing.

2 Weeks before KSA Meeting

- Tabulate the RSVPs.
- Call those who have not yet RSVP'd to promote the event and get responses.
- Make an effort to secure at least 15-20 positive RSVPs. It is typical for as many as half of those responding positively to have something come up that prevents them from attending.
- Ensure the KSA list has been finalized and reviewed; import KSAs into a spreadsheet that will tally the votes during the meeting.
- Test the A/V and web-meeting equipment and software, as applicable.
- Prepare for the Faculty Cross-Reference Meeting that will follow the KSA meeting:
  - Determine date, time, and room for meeting.
  - Invite faculty via calendar appointment.
  - Working with faculty, identify courses that are or may be included in targeted certificate/degree.
  - Drop course names or numbers into the KSA spreadsheet on the right side (hide these columns during the KSA meeting).
- Finish any remaining tasks from the Week 3 list.

1 Week before KSA Meeting

- Send reminder email /calendar invitations to all who were invited to the KSA meeting asking those who have not RSVP'd to do so (includes faculty). Include campus map and parking instructions along with directions to the room and a PDF of the original invite.
- Verify catering is arranged, confirm headcount, and ensure delivery aligns with your meeting schedule.
- Print KSA voting spreadsheets for everyone attending the meeting. (DO NOT email the spreadsheet in advance or to those not attending because the discussion during

the KSA process is just as important as the voting. Those who receive the spreadsheet in advance often fill them in and return them, skipping the discussion.)
- Prepare and print sign-in sheet for BILT and faculty.
- Ensure recorder and minute taker are confirmed to attend.
- Finish any tasks left from previous weeks.

2 Days before KSA Meeting
- Send another email reminder with map.
- Reconfirm A/V and catering.
- Prepare table tents for all attending, including faculty; prepare some blanks as well for those who show up without RSVP.
- Load KSA spreadsheet on the recorder's laptop; connect this laptop to the projector and use it for screen-sharing for the web meeting so BILT members can see the calculated averages.
- Load KSA meeting introductory presentation and voting spreadsheet onto facilitator's laptop.

Roles and Protocol during KSA Meeting
- Facilitator
  - Conducts the KSA analysis meeting and is responsible for its effectiveness.
    - May be a program chair, senior faculty member, administrator, or other person, but the facilitator may not influence the voting or discussion.
    - Politely but firmly keeps discussion on track, intentionally calling on those who are 'out-talked' by the more outgoing employers at the meeting.
- Faculty are SMEs
  - Serve as ex-officio BILT members, listening and asking questions without dominating the meeting. They do not participate in the prioritization votes. Faculty do not talk about the existing curriculum during the meeting as that could slant the discussion.
  - After the meeting, faculty decide how to use KSA results to create curriculum that aligns with employer-needed KSAs.
- Recorder

  Enters the employer votes in the prioritization spreadsheet so that voting for prioritization and very brief related comments are documented in real time and displayed on the screen.
- Minute-taker

  Minutes are taken to document employer discussion by someone other than the recorder (not necessarily an administrative assistant; could be a supportive faculty member.)
- Industry Members are SMEs

  Participate fully in the prioritization voting and related discussion.

- Meeting Protocol
    - Respect each employer's donated time and use it effectively.
    - Consider all employers' input, but do not let any one employer dominate.
- Feedback

  BILT members must always receive feedback on their recommendations. Ideally, this is done at the next BILT meeting, at which faculty describe both what can and cannot be done to change the program. Sometimes BILT members can remove barriers by providing equipment or an instructor, for example.

The KSA Meeting Day

- Send final email reminder early on the day of the meeting (if the meeting is at night) or the afternoon before if the meeting is early in the day.
- Arrive early to ensure everything is set up properly.
- Set up registration table with sign-in sheet, name tents, and information about the college/program. Do not share existing course patterns for certifications and degrees so as to not influence the discussion.
- Test the equipment set-up including A/V and online access (if included).
- Make sure all presentations and spreadsheets are on the appropriate devices.
- Greet the employers.

KSA Meeting Suggested Agenda

- Welcome
- Introduction by each attendee, including those on web meeting/phone (if used.) (Remember to call on participants connected by web meeting or phone just as if they were in the room. It is a good idea to have a sign in view of the facilitator that lists who is attending via web-meeting.)
- Record the meeting if at all possible as it helps in documenting the minutes.
- Ground Rules:
    - Turn off cell phones or put on silent/vibrate.
    - Respect differing opinions.
    - Participate fully in validation ratings and discussion, though members who don't feel qualified to rate a particular item may abstain.
- Briefly explain the BILT model and KSA ranking process:
    - Emphasize desire to develop a stronger partnership with employers by asking them to co-lead the work.
    - Remind the BILT members that they are to focus on the KSAs needed in entry-level technicians, not existing courses or certificate and degree plans.
    - Each BILT member will rate each knowledge, skill, or ability for what they expect an entry-level person to know. (Consensus is not the goal.)
    - The recorder will capture the rating and add brief comments to the spreadsheet based on the discussion.
    - The average rating for each K, S, or A will be automatically calculated by the spreadsheet.

- Discussion around the importance of the skill is useful when faculty later determine how the KSA will be addressed in a course or credential. The discussion is just as important as the voting; this is the reason that in-person, real-time, synchronous KSA analysis is so much more effective than surveys sent out in advance.

- Departmental items: Cover anything that needs to be addressed prior to undertaking the KSA analysis, such as announcements, background information, enrollment issues, etc.
- Present KSA process slides to set the stage (see the slide show attached)
  - Rating Criteria 1-4 considers the following together:
    - Importance
    - Level of proficiency
    - Time spent doing the skill
    - Difficulty – how difficult is the skill to learn?
  - Another way of understanding the rankings:
    - 4 means the KSA must be included in the curriculum
    - 3 means it really should be included in the curriculum
    - 2 means it would be nice for it to be included
    - 1 means it can be left out entirely
  - Perform KSA prioritization.
  - Go through KSA one at a time, discussing each and tallying the votes for the "4s," then the "3s", the "2s" and the "1s."
  - Have follow-up discussion if the votes are widely split
- End on time, so employers believe you recognize the value of their time.
- Conclude the meeting by telling employers about:
  - The faculty cross-reference process. Faculty will meet later to map the skills identified at this meeting to existing courses. Gaps will be identified, and a curriculum strategy will be established.
  - How employers will receive feedback. Hopefully, this will occur at the next BILT meeting, usually within 2-3 months. Be sure to discuss possible dates and times before everyone leaves. Schedule the follow-up meeting if possible so attendees can put it on their calendars.

Faculty Cross Referencing Meeting

- Faculty meet soon after the KSA meeting. (Best to meet the next day or at least the next week so that the BILT discussion is fresh on their minds.)
- Bring discussion notes to the meeting to support the prioritization value per KSA.
- Collaboratively determine the 'cut-off' value (usually around 3, sometimes a little less) for items to be included in the certificate/degree.
- Use the prioritized KSA sheet with course columns no longer hidden.
- Considering each K, S, or A, one at a time, ask faculty to determine which existing courses expose the topic (mark with an "E"), and which provide thorough coverage (mark with a "T").

- Once each KSA has been considered mark GAPS where there is no "E" or "T."
    - Note the KSAs that only have "E's."
    - Discuss these items with the BILT; if exposure is not enough, there is still a gap.
- For gaps that have no course coverage, faculty will create new courses or perhaps a module for an existing course.
- Develop enhanced certificate and degree programs.
- Document which of the KSAs are covered by each certificate or degree. (Template is available.)

Reporting Back to the BILT

- Conduct the feedback meeting with the BILT; approximately an hour, possibly online. If online, send out KSA spreadsheet with course cross-reference prior to the meeting. If face-to-face, print for distribution during the meeting
- Ensure room is set up similar to how it was set up for KSA analysis if face-to-face.
- Suggested agenda:
    - Welcome/roll call
    - Thank the BILT for their dedication and commitment in the KSA analysis process.
    - Explain what the faculty did in the cross-reference process.
    - Present the spreadsheet with the priorities, but do not dwell upon it; rather, move on to the curriculum layout reporting
    - Present the curriculum layout for each certificate and each degree, showing the K, S, and As covered by each credential, not by individual courses.
    - Talk about any new modules/courses created to fill gaps.
    - Talk about any gaps that the college is unable to fill (and why). Employers may be able to help with equipment that may be needed but outside the college budget, adjunct instructors, etc.
    - Hold discussion of each degree or certificate, capturing employer suggestions.
    - Discuss any other items related to the program that may be interesting to the BILT.
    - Ask BILT members who else should be added to the team and request their assistance with introductions. It is a good idea to try to add at least one new member per quarter to keep ideas fresh.
    - Schedule the next meeting.