



Using an Education Ideas Forum to Foster Institutional Innovation Starting from the Grassroots Level

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Abstract

In this project, a town hall meeting was conducted with faculty and staff from all departments in a college of engineering. Teams of 10-12 people were asked to generate ideas for collaborative exchange among faculty, staff, and students to better support student success, retention and progression. The purpose of the town hall format was to intentionally initiate change within the college from the grass root levels instead of mandates coming top down. Dozens of ideas were generated, qualitatively sorted into common themes, and ordered by frequency. Each theme was then discussed in a meeting with administration to assign relative weights for anticipated cost and perceived impact. From this process, as ranked list was produced and the dean of the college chose several ideas for to focus on, some of which are in the process of being implemented. After implementation began, a survey was conducted with faculty to explore their perceptions about the value of the town hall process. A large majority of respondents felt heard through this process and would participate again in a future forum.

Keywords

Town hall, Education Ideas, Retention, Student Success, interdisciplinary collaboration

Introduction

This paper extends on work published at the ASEE Southeast Section Conference in March of 2020 [1]. The research project itself was inspired by the ASEE's Interdivisional Town Hall Meeting held at the National Conference in 2017 [2]. A local version of a similar town hall was held in Spring 2019 during an engineering college-wide meeting which all faculty and staff attend at the beginning of each semester. Data were gathered about ways to improve college-wide collaboration efforts to support student success through this forum. This data, and subsequent discussion about the resulting analysis, is used to address our research question: *What types of change can be produced through a town hall approach to leverage college-wide expertise in support of student success?*

College faculty and staff do not always feel like they are not directly connected to making meaningful change, or that their voice is heard. Therefore, a mechanism, based on the ASEE Interdivisional Town Hall, was proposed for the local community to respond to prompts eliciting ideas and/or potential solutions to engineering education issues by generating potential action plans or ideas to improve the college while also introducing faculty and staff to valuable research-based information about those issues. In this way, faculty both learn about important engineering education research areas and also contribute ideas supporting its adoption. Out of several possible research questions adapted from the ASEE 2017 Town Hall, the following single question was adapted for the engineering college wide town hall: "How can our engineering college foster and promote collaborative exchanges about student success, retention, and progression (including both teaching and support) that most benefits students; promotes faculty and staff development; and leverages the expertise of many?" This question was selected due to its potential to bridge interests and needs of all of the faculty and staff in the college.

During the town hall, participants were given table numbers at the check-in location outside the room where the event was held. Numbers were provided in repeated order of the table numbers from 1-12 in order to randomize the composition of each table rather than having departments sitting mostly together, as was common practice at college-wide meetings. At each table, role cards and the discussion prompt had been placed at each seat to encourage inclusive and equitable contributions to discussion. After a brief introduction to the town hall origins, format, and purpose, each group was initially given 8-10 minutes to discuss the topic and come up with ideas. After observing the vibrancy of discussion, the dean then agreed with the facilitators to extend the discussion several more minutes. Participants were also reminded of their assigned roles, which were designed to create accountability across all participants to generate quality outcomes for their table. These roles were contributor (several per table), moderator (one per table), and recorder (one per table). Descriptions of these respective roles were printed on the cards for the participants. After group discussions, groups were invited to report their most impactful ideas to the larger group, and these contributions were reported one table at a time for as long as time allowed (approximately 7 minutes). Written results from the recorder in each group were then collected at the end of the meeting. Groups were also allowed to submit their ideas during the live meeting online using a course set up within the local learning management system that all faculty and staff had been provided access to, or to submit additional ideas online during a two-week window after the meeting. The dean of the college sent out a thank you for contributions during meeting along with a reminder before the end of the two-week window.

Ideas generated from each group were analyzed using open coding in a grounded theory approach to generate themes. Responses assigned to each theme were then summarized for discussion with the leadership from the Dean's office. Each theme was ranked based on their frequency in the collected comments, estimated cost of implementation, and potential impact. A summary of the results was presented to the faculty and staff community at the beginning of the fall semester, and the two areas selected by the Dean's office for implementation were revealed. The implication of this institutional innovation process is that it is a novel, low-cost way to foster tangible change that comes from a grass-roots level. This approach helped establish communication between the faculty/staff community and provided administrators an easy way to make changes that are most desirable coming from bottom up.

Methodology

The overall research approach for this study is a mixed methods embedded design approach involving both qualitative and quantitative data [8]. The town hall itself produced qualitative data, upon which interpretations of results were produced by the researchers. This was then followed up with a mixed quantitative and qualitative survey about faculty perceptions of the process.

The structure of the Town Hall and subsequent decision process aligns with the 3-step model for shared governance outlined in a comprehensive study by Vanderbilt [2] generated by mining best practices from peer institutions and the literature of the field. They recommend the following shared governance strategy:

Adopt a three-step process of shared governance decision making. The three-step process is as follows:

- Early-stage discussion between faculty and university/school leaders with the objective of encouraging the free-flow of ideas at this early stage.
- Decision process communicated by leaders to faculty with clarity around expected processes of decision making. For example, which groups are active participants in the decision-making process? Which groups will be consulted and will serve in an advisory capacity? What will the feedback loop look like after the decision is made?
- Follow-up report after decision making provided by leaders to faculty to explain the rationale for the decision(s) made.

Further, the idea of Town Hall is grounded in the principles of shared governance as they pertain to both process (mechanisms for communication and decision making) and outcomes (measurable results such as retention, quality of student experience, student participation in research or other extracurricular activities, etc). Each of these components are frequently cited as having important and unique contributions to successful shared governance [3]. Sharing good ideas helps generate even more good ideas. What works well for one group could also work well for another. Bringing faculty together provides a platform where they can share ideas that they implemented and that resulted in student success. The motivation of this work is based on the principle of student success being integrally connected, to the success of the faculty and staff, and therefore the entire institution.

Students who use available resources are more likely to succeed [4,5,6]. Likewise, sharing ideas in a Town Hall setting that promotes collaboration among faculty, staff, and students is likely to promote student use of these resources. Our job is to figure out how to best collaborate to make students aware of these resources, help them access and use those resources effectively through collaborative exchanges. During the Town Hall meeting, all the participating engineering faculty and staff (90+) were asked the following question.

“How can our college foster and promote collaborative exchanges about student success, retention, and progression (including both teaching and support) that most benefits students; promotes faculty and staff development; and leverages the expertise of many?”

They were seated in round tables of 10-12 people and were given 7-8 minutes to discuss their ideas and record. A summary of the process used for this study is shown in Figure 1. Attendees were given the opportunity to generate responses to the question during the meeting but also continue the discussion online on D2L after the meeting. The timeline for the shared governance process is as follows:

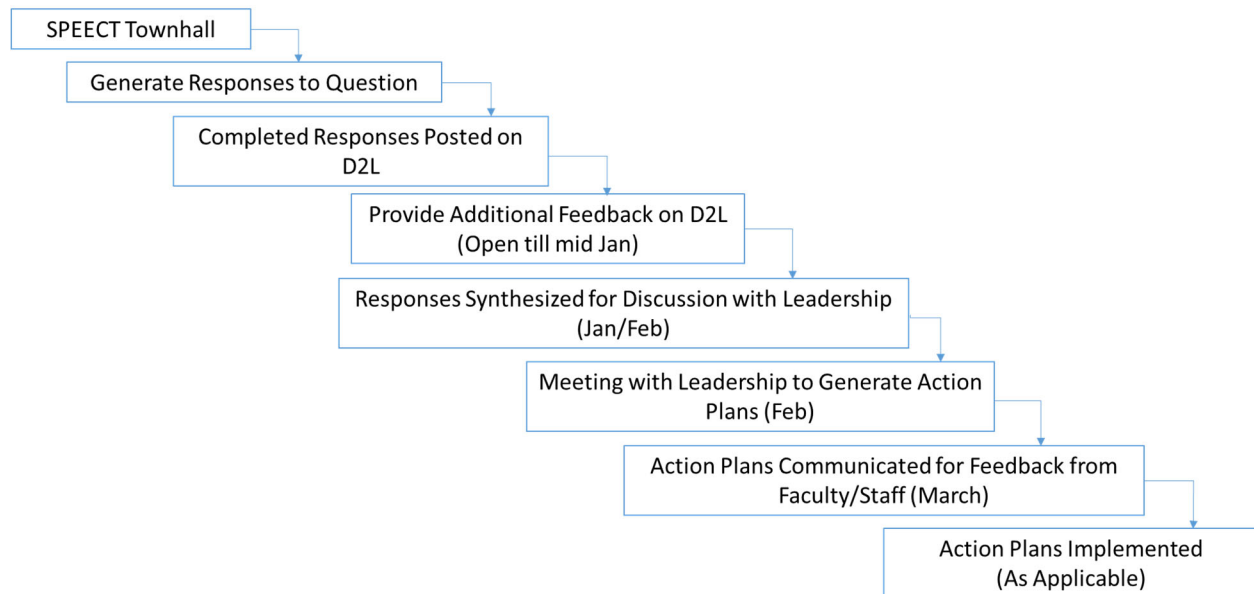


Figure 1: Town Hall Project Process

Attendees on each table were divided into three categories: 1) Moderator: To keep everyone on time, on track and on task; 2) Recorder: To capture and record all ideas in a way that others can understand and 3) Contributor: To be positive and keep comments on topic. In the end one person on each table was asked to share the key ideas generated. Recorders either recorded the generated ideas directly online or on printed handouts, which were then collected by the session leaders.

Initial qualitative data - As stated above, analysis of ideas collected from recorders was conducted using open coding in a grounded theory approach to generate themes [8]. Immediately after the forum, each statement from each recorders worksheet was first entered verbatim into the discussion boards on the learning management system on a team by team basis according to the table number for that team. The electronic versions of these statements were then combined with additional comments entered into the learning management system after the town hall itself during the two-week open comment period. At the end of the two-week open comment period, all statements were downloaded and entered into a spreadsheet for analysis. First, compound statements were separated into individual clauses. Then, each of the two researchers assigned themes to different types of comment clauses using the constant comparative analysis approach. In this approach no preconceived labels or themes were used to categorize the data. Rather, theory about the meaning of the data was grounded in the data themselves. After coding each comment clause, the two research came together to discuss each code and come to consensus on a common set of themes to describe the data. Once the final set of themes was agreed upon, the frequency for each themes appearance in the original data could be tabulated.

Follow-up qualitative and quantitative data – an IRB approved survey of faculty perceptions about the value of the town hall approach was conducted anonymously after administration had begun to implement several of the ideas presented. This survey contained three quantitative Likert scale questions which were analyzed using descriptive statistics, and two open-ended qualitative questions which were used to triangulate results. With permission of administration,

the survey was distributed in hard copy at the end of a college-wide meeting two semesters after the initial town hall was held. Results were collected as faculty left the meeting and by campus mail from those who elected to finish the survey at a later time.

Results and Discussion

Following the open coding process, the data were compiled and sorted by their assigned themes, as shown in Table 1. The themes are sorted in terms of their frequency.

Table 1: Summary of Responses

Suggested Action Items – sorted into themes	Frequency
Create centralized web portal specifically for engineering	11
Create college-wide engineering student forum	8
Mentoring system for new faculty	8
Student Design Project information exchange	8
College research seminar series	6
Create culture centered around regular student-staff-faculty communication	6
Provide collaboration space for students	6
Value teaching-related efforts including research	5
Student Competitions	4
Expand Student Recognition Opportunities	3
Reinvigorate Teaching Partners Program	3
Strengthen ENGR Course Coordination	3
Expand Staff and Faculty Recognition Opportunities	2
Strengthen Inclusivity for Staff	2
Incentivize collaboration	11*

After all the ideas were gathered, a meeting was held with the engineering dean to discuss the ideas, their potential impacts and the cost of their implementation. Potential impact on achieving the goals represented by the discussion question was rated for each theme on a scale of low, moderate, or high and given corresponding numerical values of 1, 2, or 3. Cost was assigned in the same manner. Then, a numerical formula was applied to quantify and rank each theme. The formula used was $\text{Rank} = \text{frequency} * \text{impact} / \text{cost}$. In this way, frequency had contributed more to the ranking results than impact or cost, as frequency ranged from 1-11 while cost and impact were limited from 1-3. This model gave additional weight to the voice the college faculty and staff community through inclusion of their ideas generated during the town hall, yet gave administrative considerations significance as well. Ideas that were determined to have the highest rank are shown in Table 2. The dean agreed to select from among these top six ideas that ranked highly for implementation, and offer actions operationalizing these ideas that were consistent with the original contributions generated during the town hall that fell under those themes during the coding process.

Table 2: Consolidated Ranked Results

Themes	Rank = frequency*impact/cost	Rank
Value teaching-related efforts including research		1
College research seminar series		2
Create culture centered around regular student-staff-faculty communication		3
Expand Student Recognition Opportunities		4
Create centralized web portal specifically for engineering		5
Mentoring system for new faculty		6

Following this initial ranking, the office of the dean took some time to determine which ideas to implement from among the top ranked items. Two ideas were selected for implementation and announced at the college-wide meeting at the beginning of the subsequent semester. These were:

- *College research seminar series*
- *Expand student recognition opportunities*

The reason for selecting these ideas was several-fold: (1) they align with the current strategic plan of the university (2) they could be implemented with small teams (3) they generate easily communicable results.

These items are currently in the early stages of implementation, as shown in Table 3. The college has begun to sponsor approximately monthly presentations highlighting research from within the

college and also research from outside the college with high potential to generate synergistic activity from within the college. Regarding student recognition opportunities, a set of awards for students was initiated on an annual basis. These awards are presented at the college Engineers Week luncheon in February, which is attended by faculty, staff, and students for awards or other recognition.

It is also highly significant to note that implementation of innovations in two other theme areas have begun to occur even though they were not formally selected for implementation during the town hall process. First, *value for teaching-related efforts including research on teaching* has begun to occur in formal documentation for the college such as the college roadmap document and in promotion and tenure guidelines. Second, a *culture centered around regular student-staff-faculty communication* has begun to emerge through a weekly newsletter from the office of the dean which is distributed to the entire college. While no direct connections to the town hall process can be attributed to these changes, it would appear that simply bringing these ideas to light may have sparked additional cross-college opportunities for interaction and collaboration among students, faculty, and staff.

Table 3: Implementation Results

Theme	Implemented
Value teaching-related efforts including research on teaching	Yes, spontaneously
College research seminar series	Yes, formally
Create culture centered around regular student-staff-faculty communication	Yes, spontaneously
Expand Student Recognition Opportunities	Yes, formally
Create centralized web portal specifically for engineering	
Mentoring system for new faculty	

Post Implementation Survey

Faculty were surveyed during the spring 2020 college meeting to gather their feedback on effectiveness of the process. The following questions were asked in the survey:

Q1: I found the SPCEET Town Hall to be a good way to bring ideas from the grass roots level to the dean's office for implementation.

Q2: I felt my ideas were heard during the Town Hall process.

Q3: I would like to participate in another SPCEET Town Hall.

The response options for question were a standard 5-pt Likert scale: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

Out of just over 100 attendees, twenty-one faculty members responded to the survey, which represents a response rate of approximately 20%. Following are the results of the survey:

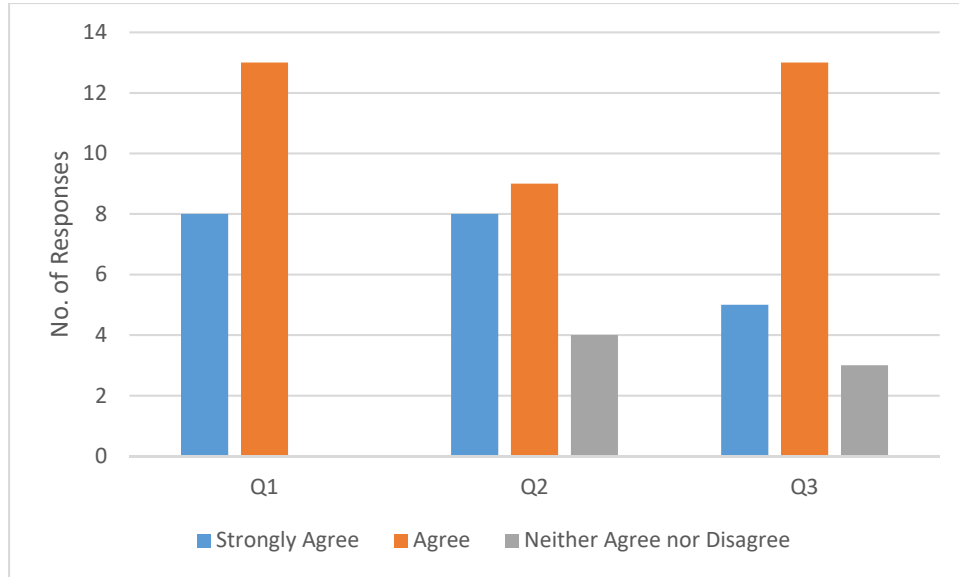


Figure 2: Responses to Post Implementation Survey

As shown in the figure, results were very positive overall. No disagree or strongly disagree responses were received. 100% of respondents strongly agreed or agreed that the Town Hall format was an effective way to bring ideas from the grass roots level up to administration for consideration. Over 80% agreed or strongly agreed that their ideas were heard during the Town Hall, while the remainder were neutral. Of the neutral respondents, comment indicate that the short timeframe for the townhall itself limited the ability of everyone to respond. Over 85% of respondents agreed or strongly agreed that they would like to participate in another town hall, with the rest remaining neutral.

Responses to qualitative questions are listed below:

Qualitative prompt #1: Please comment on how you feel about the way data was collected during the SPCEET Town Hall.

“Able to communicate my thoughts to higher authorities than this forum.”

“Enjoyed the experience and felt it was valuable, could have been longer to have group help prioritize.”

“The forum was too big and sprung on participants. More thoughtful ideas might come if we were given time to brainstorm in advance.”

“I like that the data was available for viewing online.”

“Good process and good opportunity to give feedback”

“I think it was efficient and appropriate. However, I think it would be good if there is a way to collect opinions and ideas from individuals. (Probably a web page where everyone can post.)”

“For the action part, I am wondering why we had only 2 items marked as Yes. All of the items should be implemented. Faculty appreciation should be added.”

“Working in teams of 4-5, I think would be better and make engaging.”

“Not enough time. Perhaps receiving the question ahead of time would have been more efficient.”

“Good that it was collaborative and at the grass-roots level.”

Qualitative prompt #2: Please comment on how you feel about the way decisions were made based on the data collected during the SPCEET Town Hall

“Good to see actual results of decision.”

“Good method to rank ideas and implement one or two- esp. the research seminar serves”

“I think it was good. No improvement is needed.”

“Appears objective and reasonable”

“The effort was good and I appreciate your work. But not all ideas or suggestions were considered. Not all faculty members checked D2L to give their votes.”

“Fair and decisive.”

“Not transparent how the collected data was processed, ranked and corresponding actions decided on.”

As these qualitative responses show, stronger communication prior to the event may have improved feelings of preparedness. Further, despite announcements during the event and multiple emails about how to contribute additional feedback and ideas online after the event, some participants were unaware of how that process actually operated. Strategies to communicate with faculty in other ways about how to provide feedback may be needed in order to alleviate this issue. Given that this the first time this type of event was attempted, many of the issues raised appear to be ones that could be addressed over time if the event were repeated each semester or perhaps each year.

Conclusions

With a careful, research-based approach, investing as little as 15 minutes to generate ideas supporting student success during a college-wide faculty and staff meeting can result in actionable ideas supported by administration. We attempted to accomplish this using the ASEE Town Hall Meeting format from the 2017 ASEE National Conference as a model for interdisciplinary conversations across all faculty and staff in our college. In our case, actions across four different themes generated from the discussion occurred. In order to facilitate this success, we recommend that discussion be based on current evidence-based approaches emerging from the engineering education literature. Further, a systematic approach to collecting and analyzing data appears to be important, as it may add weight to individual ideas collected at the grassroots level when they are grouped into common themes and seen as a larger voice emerging from a data driven research process rather than from any one individual.

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