A Faculty Retreat Model Featuring Collaborative and Active Learning

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Abstract

A workshop-style, active-learning model was recently implemented in a Mechanical and Industrial Engineering (MIE) department retreat prior to the start of the Fall 2018 term. The department is currently undergoing a curriculum redesign, and a special committee was created to design the talking points for the retreat. Among the concerns were: meaning of grades, expectation of grade distribution, adoption of teaching pedagogies that align with the department goals, and definition of teaching excellence. Opinions were divided, and many felt strongly about each topic. New and non-tenure-track faculty were initially assigned as scribe or presenter, so as to encourage participation. A moderator in each group helped keep the conversation on track, and intervened whenever necessary. A preliminary post-retreat evaluation of faculty satisfaction shows encouraging results. A follow-up dissemination of the retreat outcome took place during a regular faculty meeting several weeks after the retreat, and the discussion topics were revisited in an attempt to reach a consensus, particularly regarding issues that were divisive. Future work include a second follow-up meeting and creation of a task force to act upon the retreat outcomes.

Keywords: Faculty retreat, faculty development, active learning, collaborative learning

Introduction

Recent advances in engineering education have produced numerous strategies in content delivery, classroom management, and assessment, as well as a better understanding of the fundamental learning process. However, permeation of these new knowledge and strategies among the faculty is often limited for a variety of reasons. As a remedy, all-day faculty retreat can be an effective way of promoting new education goals, providing specific training, or boosting morale. Oftentimes, however, opportunities are lost due to the lecture-style, passive-learning format administered at the retreat. Faculty quickly lose focus or simply get bored, echoing how students would behave during a conventional lecture.

Several faculty-centered retreat models have been developed in recent years [1,2], but few have an engineering focus while documenting the detailed planning process, the retreat format, and measured outcomes. A retreat model is hereby presented where all members of the faculty actively and collaboratively participate, and voices from all ranks and seniority are heard, documented, and subsequently shared. The core of the model is the use of small-group breakout sessions. Carefully-crafted questions are posted one at a time, discussion points and opinions captured in writing, and the summary reported out. The scribe and reporter/presenter are appointed on a rotating basis for each breakout session.

In this paper, the planning and decision making process, detailed retreat format, and an evaluation of effectiveness and impact are presented.

Planning Process

The refreshed retreat was a culmination of an effort by a dedicated faculty committee overseen by the department chair. The committee convened a total of seven times over two months during the summer; from conceptualization to final details, each meeting produced ideas or action items necessary for progress.

The Vision

Unlike past retreats where information had largely been presented top-down with limited interaction among the attendees, the gathering was envisioned to be a platform for holistic discussions and sharing among all constituents of the department faculty. Every individual - regardless of rank and seniority - would be given an equal opportunity to speak and be heard. The theme would be thoughtfully chosen, the discussion topics would inspire and rejuvenate, and the outcomes would be reflected and acted upon.

The Committee

The working group consists of several faculty members having prior experience in engineering education research as well as event planning.

The Ideation

During the first committee meeting, initial goals were set and constraints recognized. Reflecting on past retreats attended by each committee member at various institutions, it was quickly decided that lecture-style presentations should be limited. Further reflecting on classroom pedagogies the each member has utilized, the committee unanimously agreed that an interactive, workshop-style format would be an effective way to engage the audience.

Subsequent meetings took place approximately biweekly. The goals were polished, and the retreat content grew organically as guided by the goals. Finally, after a substantive amount of content had been reached, the appropriate duration of the retreat was then determined.

It is worthwhile to note that the opposite of the above process, i.e., "trying to fill/kill time" strategy, should be best avoided. It is important to first set goals that resonate among all committee members, then let the substance emerge during ideation and discussion, and finally define the necessary time span as well as all material, technical, space and logistical needs.

Finalization

Since small-group breakout sessions are key to the retreat, it was necessary to secure a meeting venue that would allow for mobility and sufficient privacy for each small group. Materials needed for the breakouts included large, self-adhesive writing pads, wide-tip markers, and a portable easel. Technological needs included basic audio-visual equipment and an optional video camera for post-event analysis and reporting.

The Retreat

The faculty retreat took place during the week prior to the start of the Fall 2018 term, and lasted approximately seven hours. A total of 31 faculty members were in attendance. The featured theme was "drivers of the future job market," motivated by the outcomes of a year-long effort by another committee who had been tasked with assessing the need for a curriculum reform. The goals for the retreat and its participants were:

- Understand and appreciate the urgency of the shifting job market for future graduates
- Collectively brainstorm and share how best to respond to such urgency

To achieve these goals, small-group breakout sessions were utilized and will be described in detail below.

Participant Preparation

For the organizing committee, the bulk of the effort has been spent leading up to the event itself and has been described in the preceding section. For the participants, no particular homework was assigned prior to the retreat in order to minimize bias and foster fresh ideas during discussion sessions.

Ground Rules

To effectively facilitate the planned agenda, no cell phone or laptop/tablet use was allowed throughout the day. The attendees were also reminded that every constituent of a small group should be treated equally and given the opportunity to speak and be heard, but thoughtful and respectful rebuttal was always encouraged. Although the event was video-recorded, all participants were encouraged to express freely, and were reminded that the recording would only be used internally for a post-retreat analysis of the format.

Part I: Set the Stage

As an introductory remark, the department chair first presented a background story, "drivers of the future job market," that inspired the retreat. It was kept concise and to the point, and lasted

no more than thirty minutes. Once the urgency had been established, the first breakout session began.

Breakout #1 (25 Minutes)

A total of thirty one faculty members were present, including the four event planners. Four small groups were formed based on a "blended homogeneity" guideline: Each group should contain a most recent hire (regardless of rank) and at least one non-tenure-track (NTT) faculty. The remainder of the pool were then randomly assigned.

A question was posted for the breakout: "How do we incorporate [a list of newly-identified skills] into our teaching?" Reactions were solicited from each group. If no consensus were reached by the end of the conversation, each differing opinion should be documented.

Each small group must utilize the provided markers and sticky pad. To ensure engagement, a scribe and a presenter were appointed on a rotating basis. The scribe must constantly take notes of the conversation, summarize the main points, and design a visual as necessary. Following each breakout, the presenter would then report the group's findings. For Breakout #1, the new hire and the NTT faculty were selected as the scribe and presenter, respectively.

To ensure equal opportunity and encourage freedom of expression, each of the organizing faculty was assigned to a group as a mediator during the breakout, and should intervene whenever the conversation veered off or became unproductive.

Report-Out #1 (5 Minutes Per Group)

The reporter from each group delivered a summary of the discussion by referencing the self-adhesive note. A brief follow-up discussion from the general audience was welcome during each report-out.

At the end of the reporting, all notes were posted on the wall for further reflection during breaks. Digital images of a sample of the notes are shown in Figure 1.
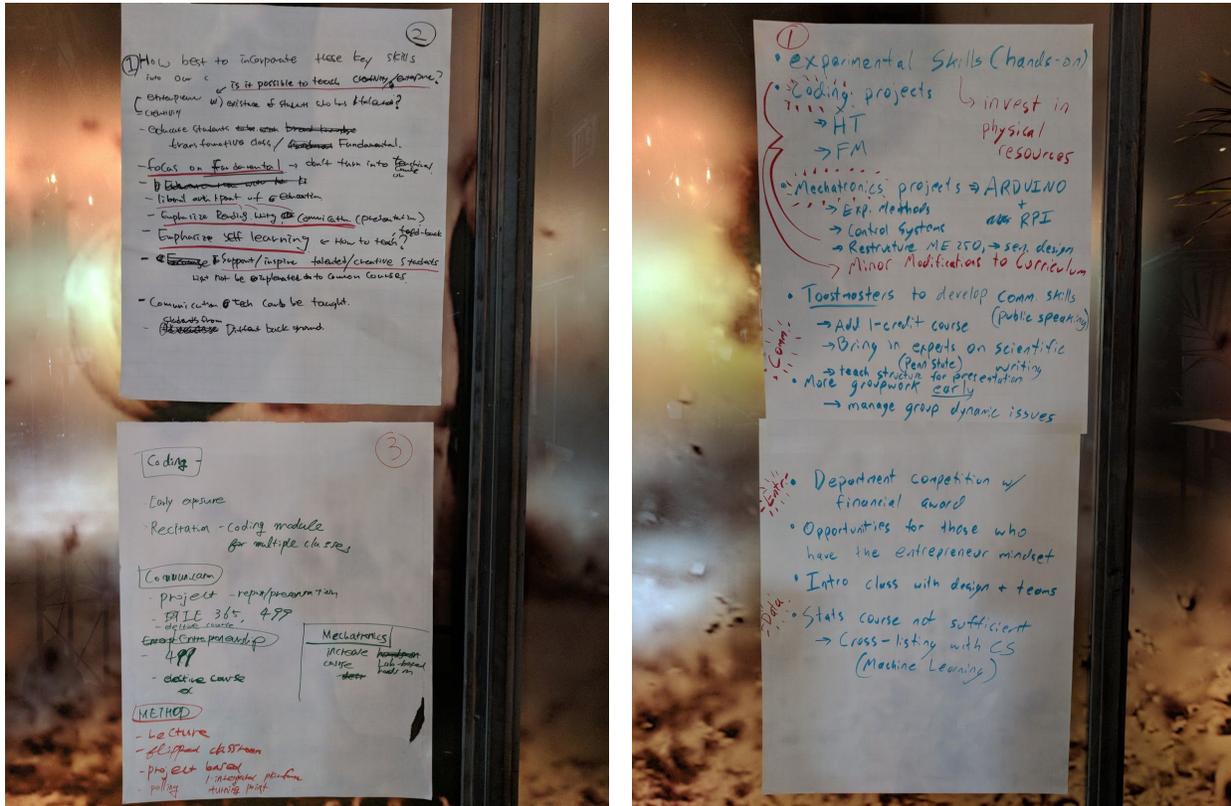
Figure 1. Samples from Report-Out #1.

Part II: Dig Deeper

To help transition to the ultimate question - and quest - of "how to be a great teacher," another 30-minute informational remark was given by one of the organizing committee members. The topic revolved around the correlation between grade distribution and teaching evaluation results, and it ignited much enthusiasm among the audience.

Breakout #2 (25 Minutes) and Report-Out #2 (5 Minutes Each)

Similar to the last breakout session, a question was posted to the groups ("What is the meaning of letter grades, and what is your expected/ideal grade distribution, if any?"). A new set of scribe and presenter were assigned.
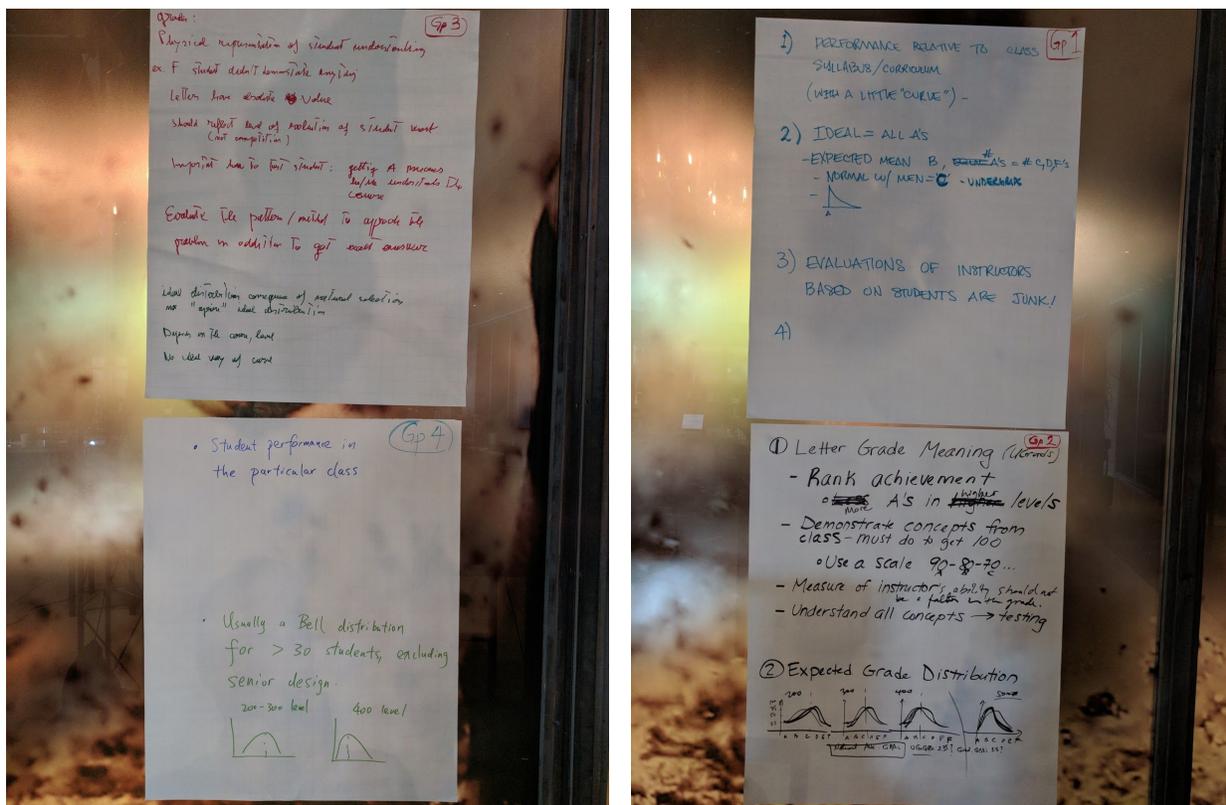
Figure 2. Samples from Report-Out #2.

Observations

At the end of the fall semester following the retreat, the faculty were surveyed as to their opinions about the retreat and the changes they had made because of material covered during the event. The survey was presented to the faculty nearly a full semester after the retreat so that respondents would consider what they learned and what they chose to use in their own practice, in addition to how they enjoyed the activities. These results are shown immediately below in Figures 3-7.
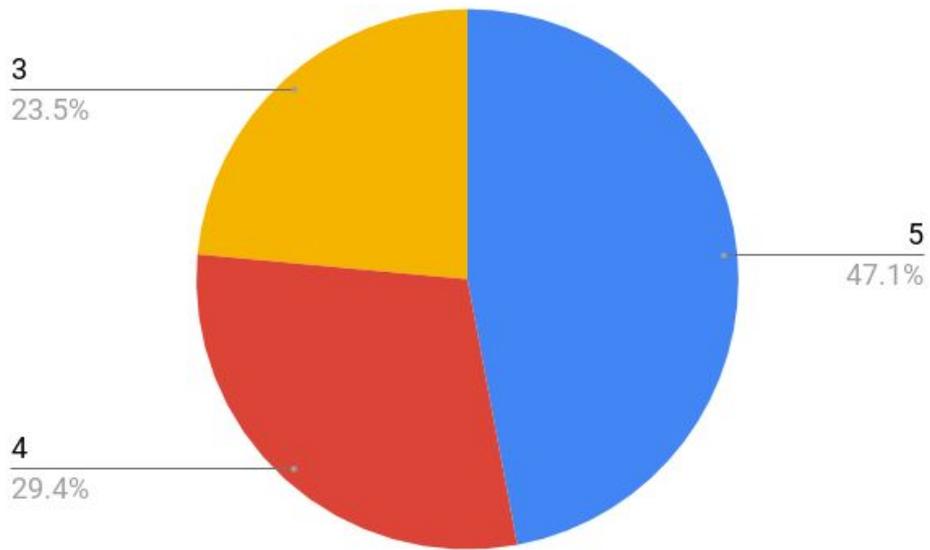
Figure 3. Survey Result #1: I liked the format at this retreat (small-group breakout sessions, active discussions, etc.).
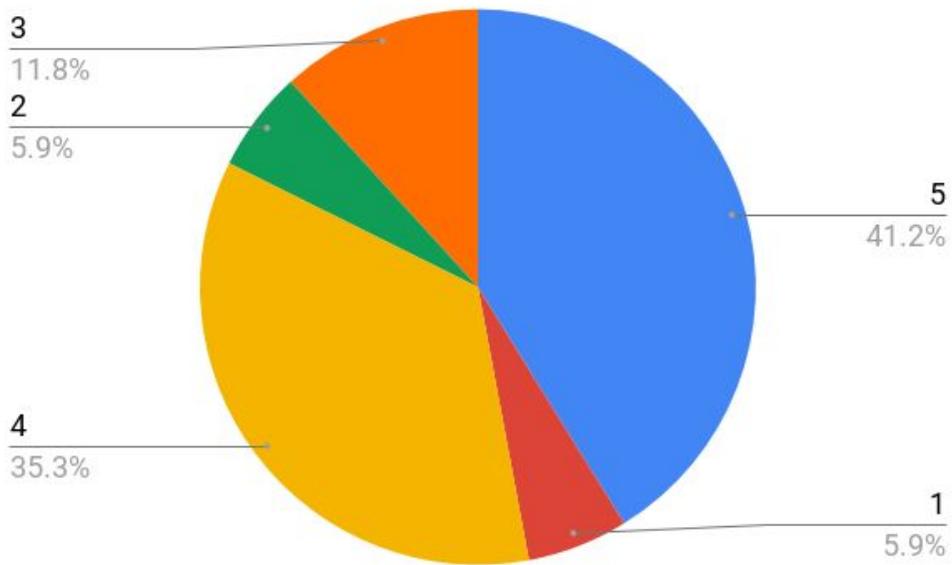

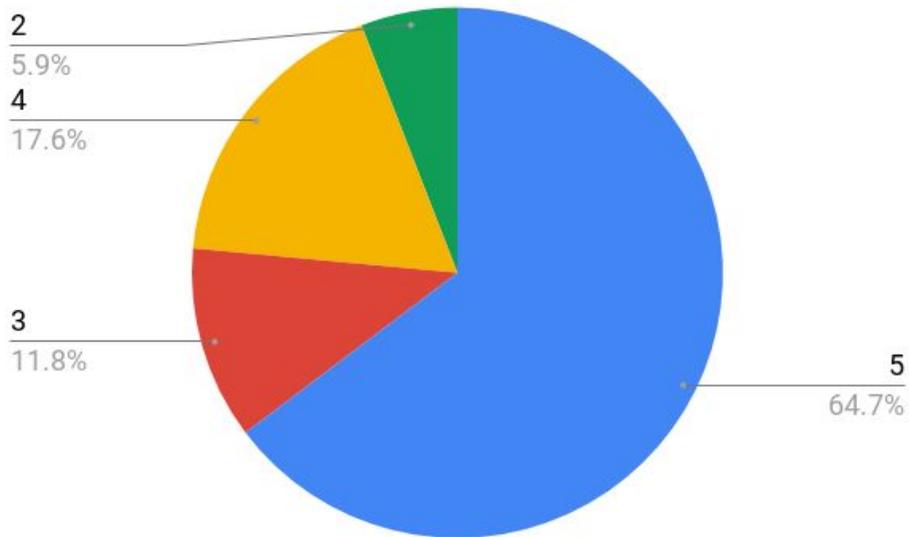Figure 4. Survey Result #2: I felt that my opinion was heard.

Figure 5. Survey Result #3: I enjoyed the discussion topics (preparing students for future jobs, meaning/expectation of grades, what's teaching excellence).
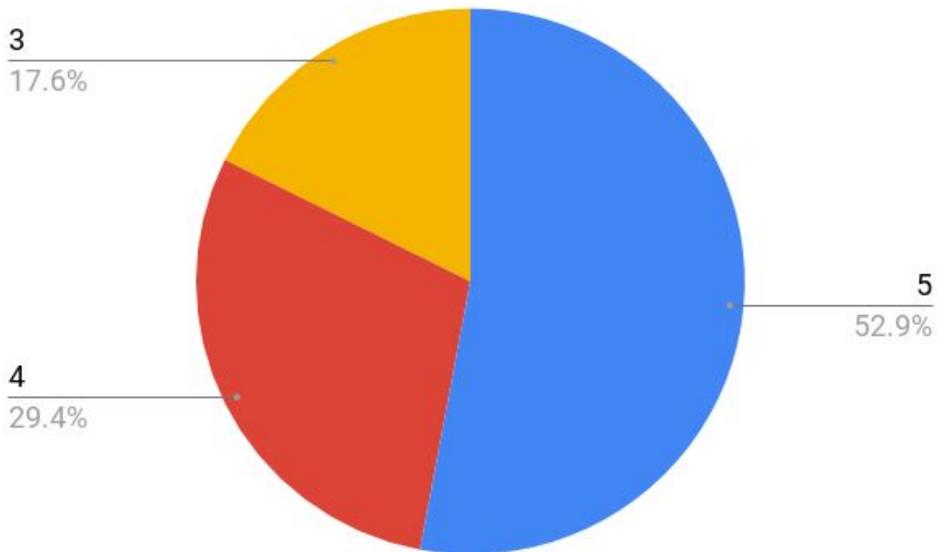

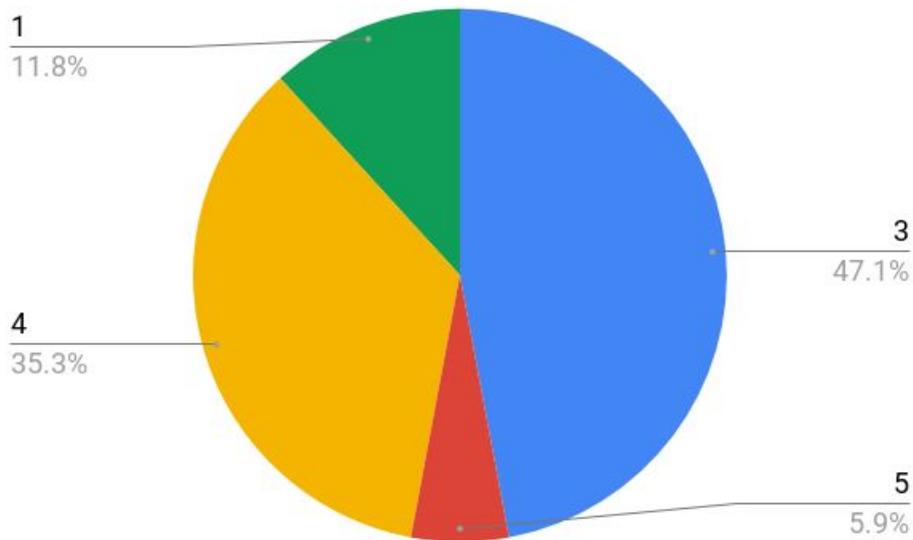Figure 6. Survey Result #4: The retreat made me think about my teaching.

Figure 7. Survey Result #5: Because of the retreat, I either implemented a new teaching strategy/style/tool in Fall 2018, or plan to implement a new teaching strategy/style/tool in a future semester.

The results in Figures 3-6 show that the retreat had a strong and positive impression on the faculty. Anecdotal feedback from the survey also indicate a successful experience. A sample of the comments includes:

- "The topics were great and helpful."
- "I like the open discussions, variety of topics."
- "The organization in breakout groups was very helpful."
- "Friendly atmosphere."

Dissemination & Impact

The department took steps to increase the impact of the retreat. The entire retreat was video recorded. The topics covered in the retreat were revisited at a faculty meeting in the semester following the retreat, and will be included in future faculty meetings as well.

Even though there was no formal program to disseminate this new approach to the faculty retreat, it nevertheless spread organically throughout the College of Engineering. Conversations among faculty colleagues and a presentation of the structure of the retreat by the department head at the College administrative council sparked considerable interest in other departments. Another engineering department decided to employ this small-group discussion model at their own faculty retreats and meetings. It was particularly gratifying to the organizers

of the MIE retreat to hear from colleagues in other departments that they were "using the MIE department's approach" in their retreats, and they were positive about the experience.

Conclusions

A new model for faculty participation in a department retreat was developed and implemented. Central to the model is active learning and collaborative group work, attempting to promote the same good pedagogical practices in the retreat as would be used in a progressive classroom. Faculty may if anything require more intervention than students for true engagement, since a faculty retreat is typically a command performance and the faculty have not chosen the topic as students have when they select a course. Anecdotal observation of participation by the organizers was that the vast majority of faculty at all levels engaged actively in the discussion groups, including, notably, some individuals who were well-known for lackluster participation in past retreats. The new retreat model enjoyed some popularity among other departments in the College of Engineering the department head presented the idea to the other heads. An evaluation administered a full semester after the retreat shows promising preliminary results that the retreat model promoted engagement in the activities and also adoption of the ideas discussed in the retreat by faculty. These results, while preliminary, suggest that this experiment in the structure of the department retreat was successful, and an active-learning approach to faculty discussions at department retreats and perhaps also in faculty meetings should be continued and expanded.

References

[1] McDaniel and Smith (2006), Using the Great Teachers Model for Engineering Technology Faculty Renewal: A Strategy that Works. ASEE Southeast Section Conference.

[2] Wolf,, P. (2007), A model for facilitating curriculum development in higher education: A faculty-driven, data-informed, and educational developer–supported approach. New Directions for Teaching and Learning, 2007: 15-20. doi:10.1002/tl.294.