**Course Coordination in Oklahoma Mathematics Departments**

Ashley Berger, Paul Regier, Allison Dorko

**Overview**

Our CoRD interviewed course coordinators and instructors from 5 institutions of higher education in Oklahoma. The purposes were to document the coordination activities of coordinators in contexts with varying levels of coordination structure, as well as the instructor's perspectives regarding what aspects of coordination are helpful and unhelpful. (a) the coordination activities coordinators in structured coordination systems do, (b) the coordination activities done in semi-structured systems, and (c) instructor perspectives on what is helpful and not-so-helpful about coordination. We also include advice from current coordinators about being a coordinator. The overall goal of the CoRD is to document the range of perspectives and coordination practices as a guide of things for new coordinators, current coordinators, and departments seeking to begin or improve course coordination.

**Types of coordination**

We characterize *structured coordination* as a system set up to ensure a high degree of uniformity and relatively low academic freedom, and *semistructured coordination* as a system designed for a moderate degree of uniformity and high degree of academic freedom. These definitions followed from the data we collected.

In all but one structured coordination system in our data, a single coordinator was responsible for a course; in the exception, the institution had a coordinator and co-coordinator for some of their courses. In all but one semistructured coordination system, a committee of instructors who regularly taught the course made coordination decisions. In the exception, a department head made coordination decisions.

**Participants**

Participants represented 5 institutions of higher education in Oklahoma, representing the experiences from following contexts:

* Five participants described their experience as coordinators in structured coordination systems.
* Four participants described their experiences as coordinators in semistructured coordination systems
* Five participants described their experiences as instructors in coordination systems.

**Methods**

To identify the actions taken by coordinators in both types of systems, the authors performed a grounded theory analysis (Strauss & Corbin, 1998) in which two authors independently read all interview transcripts and listed coordinator actions. They then compared their lists and grouped the items into themes. Following this, the three authors split all the coordinator transcripts amongst them such that each transcript was coded by at least two people. Those who coded the transcript met to discuss any discrepancies and resolved any differences. The same process was used to identify the parts of coordination that instructors liked and the parts they did not like. The authors used this process a third time to find themes in the advice current coordinators would give to other coordinators or those new to the job.

**Coordination activities of coordinators in structured systems**

We found coordinators in structured coordination systems did the following non-mutually exclusive actions:

1. They designed for both rigor and quality of students’ mathematical content experience by providing high-quality instructional materials. Specific actions for each of these included
   1. Determining learning objectives and the content to be learned.
   2. Surveying textbooks and choosing course text.
   3. Creating and making available to instructors rigorous resources like lecture notes, homework assignments, assessments, answer keys, and videos.
   4. Creating materials for corequisite sections of the course.
2. They designed their course for both rigor and quality of students’ mathematical experience by ensuring good instruction in the classroom. Specific actions for each of these included
   1. Providing opportunities for instructors to reflect on their teaching.
   2. Helping instructors learn how to use technology and checking in with instructors to make sure everyone is set on technology in the classroom.
   3. Setting and explicitly stating expectations.
   4. Seeking ways to give instructors ownership and choice.
   5. Checking in with new instructors early in the term.
   6. Keeping track of instructors closely.
   7. Observing instructors and undergraduate learning assistants and doing instructor evaluations of teaching.
   8. Reminding instructors that there are negative consequences for students when teaching doesn’t go well.
   9. Re-grading exams for instructors if there was a problem with grading.
   10. Holding meetings to discuss pedagogy and classroom management.
   11. Communicating with instructors.
   12. Soliciting instructor feedback about how to provide high-quality instruction.
   13. Knowing what a coordinator’s job is and what it isn’t; that is, knowing what a coordinator is responsible for and what they were not responsible for.
   14. Explaining why policies exist.
3. Coordinators ensured they were doing a good job for the people they supervise by practicing good interpersonal skills. Specific actions included
   1. Soliciting feedback from instructors about how the coordinator is doing as a coordinator, and adapting based on the feedback.
   2. Making sure instructors felt fulfilled, valued, and appreciated by either stating this explicitly or seeking their advice and help.
   3. Thinking about decisions from an instructor's perspective.
   4. Being gentle with student complaints, approaching them from an “investigate the situation” to gain the instructor’s perspective.
   5. Giving constructive critical feedback “sandwiched” between positive feedback.
   6. Respecting the total hours instructors are required to work.
4. Coordinators ensured they were doing a good job for the people they supervise by talking to other people in the department, including other coordinators and administrators when needed.
5. Coordinators attended to students feeling like their needs were met. Specific actions included
   1. Taking into account the affordability of course materials.
   2. Responding to student complaints.
   3. Thinking about students’ emotional experience in the classroom.
   4. Checking in with students from all sections of the course, not just the sections the coordinator taught.
   5. Providing resources to students such as office hours, answer keys, and videos.
6. Coordinators sought to ensure uniformity and fairness across sections with respect to creating the overall course structure. Specific actions included
   1. Determining the learning objectives.
   2. Creating the syllabus, course schedule, and pacing guide.
   3. Setting up sections for the Learning Management System.
   4. Determining the course grading percentages.
7. Coordinators sought to ensure uniformity and fairness across sections with respect to exams. Specific actions included
   1. Writing the exam, including instructor input in some way.
   2. Determining an exam rubric.
   3. Storing and analyzing exam data across different sections and semesters.
8. Coordinators sought to ensure uniformity and fairness across sections with respect to course resources. Specific actions included
   1. Buying resources that support uniformity (e.g., calculators)
   2. Determining homework assignments.
   3. Creating lecture notes for everyone to use.
   4. Creating student workbooks for corequisite and non-corequisite sections.
   5. Explicitly attending to a notation such that all sections were using the same notation.
9. Coordinators communicated frequently with instructors. Specific actions included
   1. Being on top of email.
   2. Reminding instructors of deadlines.
   3. Holding meetings, and in particular, making meetings interactive.
   4. Maintaining an “instructor hub” in which instructors could discuss issues asynchronously.
   5. Setting and explicitly stating expectations.
10. Coordinators ensured instructors had a voice. Specific actions included
    1. Asking instructors for advice in meetings.
    2. Asking instructors for suggested exam problems.
    3. Surveying instructors for feedback.
    4. Seeking ways to give instructors ownership and choice (e.g., writing their own quizzes).
    5. Giving instructors more autonomy as their teaching experience increased.
11. Coordinators sought to provide instructors with training and professional development. This included actions like
    1. Helping instructors learn how to use new technology.
    2. Holding meetings to discuss pedagogy and logistics.
    3. Providing opportunities for instructors to reflect.
    4. Attending to the timing of messaging when doing professional development, such as talking about teaching specific content when nearing the place in the term that content would be taught.
12. Coordinators attended to framing aspects of the course (that is, the ways decisions were presented to instructors) by
    1. Describing coordination as a system to make things easier for instructors and fairer for students.
    2. Thinking about, and discussing with instructors, the audience for the course.
    3. Explaining why certain policies existed.
13. Coordinators made changes slowly.

**Coordination activities of coordinators in semi-structured systems:**

Coordinators in semi-structured systems described a wide range of activities that varied across institututions.. Although many of these individual actions are mentioned above in structured coordination, it is important to distinguish that coordinators in semi-structured systems did not do all of the following. Rather, they had a focused purpose for their coordination and tailored which aspects of their courses needed or benefited most from coordination. For example, some coordinators wrote common exams for the course, while others merely provided sample exams toaid other instructors in writing their own exams. Another coordinator solicited instructors for exam questions, giving the sense that exams were written by a team of instructors

Most coordinators in semi-structured systems acted in a way that allows for academic freedom, while still ensuring some degree of uniformity and rigor.

1. Create common course policies for use in a syllabus
   1. Providing a sample syllabus.
   2. Providing uniform calculators.
2. Determine topics to be included in the curriculum
   1. Choosing new materials, the textbook, and/or learning objectives.
   2. Providing a sample pacing chart.
   3. Providing optional materials, such as lecture notes or videos containing examples.
   4. Suggesting a theme for the course.
3. Provide resources related to assessments
   1. Choosing the homework problems or a sample homework problems list.
   2. Writing the quizzes and/or exams, including the final exam.
   3. Writing sample exams.
   4. Soliciting instructors for possible exam questions.
4. Attending to larger departmental course issues
   1. Meeting with instructors and providing a meeting agenda.
   2. Providing a complaint protocol.
   3. Monitoring transferability across courses (e.g. provide notes about what type of calculators different instructors allow).
5. Offering professional development opportunities
   1. Training instructors.
   2. Observing instructors and learning assistants.
   3. Assisting instructors with educational technology.

The range of activites described by coordinators working in semi-structured systems suggests the following. Even in contexts without the resources or scale more commonly associated with structured coordination, many small, low-cost actions can contribute to effective course coordination. One coordinator in this context described how semi-regular meetings among instructors can lead to small but beneficial changes. Another coordinator suggested, “Don’t be afraid to add one thing per semester. And then keep it up.”

Lastly, for the purpose of giving perspecitve to those beginning or implementing new efforts in course coordination, we provide a summary of advice coordinators provided about coordination, along with what instructors appreciated and did not appreciate about coordination.

**Advice from coordinators about coordinating:**

* Coordinators advised making sure instructors felt appreciated.
* Coordinators recommended soliciting feedback about their coordination and adapting based on it.
* Coordinators advise being thoughtful about good communication.
  + Coordinators advised finding a balance in the number of emails sent to bridge “lots of little emails” and “one giant email.”
  + Coordinators advised attending to the timing of email, such as sending emails at times that gave enough time in advance for instructors to utilize information in prepping for a class, but not too early that it would be forgotten
* Coordinators advised making meetings meaningful, interactive, and organized by having meeting agendas and soliciting instructor feedback, experience, and voices so that instructors felt valued.
* Coordinators advised making changes slowly, particularly if taking over a coordinator position in a course that was previously coordinated by someone else.
* Coordinators advised talking to other coordinators.
* Coordinators advised being organized.
* Coordinators advised asking lots of questions and listening.
* Coordinators advised being kind to oneself when one makes a mistake because a coordinator will make mistakes.
* Coordinators advised emphasizing framing (see above).

**What instructors appreciated about coordination:**

* Instructors liked that coordination saves them time.
* Instructors valued hearing the rationale for decisions.
* Instructors appreciated when coordinators made copies for them.
* Instructors liked individual freedom, such as the freedom to
  + to try different pedagogical models, such as “flipping” a classroom.
  + to write some of their own materials (e.g. quizzes)
* Instructors appreciated having their ideas listened to and incorporated.
* Instructors appreciated coordinators being accessible for questions.
* Instructors appreciated communication, either via email or in meetings.
* Instructors like a chance to get to know and interact with other instructors in meetings. Experienced instructors appreciated opportunities to share their knowledge with newer instructors.
* Instructors appreciated quick responses to emails.
* Instructors appreciated coordinators who are organized, prepared, and thorough.
* Instructors appreciated coordinators who work ahead and give lots of lead time for instructors to look at notes, drafts of exams, and other materials.
* Instructors appreciated having materials provided for them, such as lecture notes.
* Instructors liked having someone else make “executive level” decisions about pacing, curriculum, and course design.
* Instructors appreciated having a person to help with student issues/complaints, including academic integrity issues.
* Instructors like when the instructor group for a course is relatively stable across terms, as they feel it leads to higher quality instruction and more uniformity in grading.
* Instructors appreciated feedback that both affirms their competence, and gives them suggestions of what they can work on.
* Instructors liked when the online homework was close to the notes or textbook.
* Instructors liked when coordinators made explicit the expectations for students, and specifically appreciate when this is done early on in the term.

**What instructors did not appreciate about coordination:**

* Instructors sometimes did not like common grading, though they understood the rationale for it.
* Instructors disliked when a coordinated course tries to cover too much material, though they understand the amount of material covered may be out of the coordinators’ hands and driven by other factors.
* Instructors felt frustrated when the online homework was too different from the notes.
* Instructors did not like the loss of autonomy that can occur under coordination.
* Instructors felt frustrated when administrative decisions about courses differed from what they would like to do in their courses (e.g., an administration not allowing them to “flip” a section of a course).
* Instructors disliked spending time to improve/perfect the way they were teaching or had structured their section, then being moved to teach something else by the administration.
* Instructors disliked teaching corequisite sections when there was no extra compensation for the extra work of the corequisite section.
* Instructors did not like having too many materials to choose from, because it felt overwhelming.

**References**

Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage Publications.