Well-Coordinated : learner-focused coordination tactics beyond the Pandemergency

Key words

- Subject coordination
- Education
- Design
- Built environment
- Learning
- Teaching
- Pandemic
- Post-pandemic
- Online
- Coordination

Structured Abstract

Purpose

Post-pandemic education will be impacted by spatial and technological shockwaves, alongside other areas of society. Significant expansion of online learning will build on skills developed by educators and students in this tumultuous time, and in response to emerging challenges and structural responses. This paper explores an oft-overlooked skill that underpins contemporary teaching, and posits that 'coordination' will find its way to the centre of this new online world. The paper presents research investigating the translation of tactics for good subject coordination to an online context.

Design/methodology/approach

The authors reviewed academic literature that explored coordination in higher education settings, and recent grey literature identifying expected changes to post-pandemic university learning. The authors developed a survey instrument to investigate the translation of previously-identified characteristics of good coordination, and tactics to achieve them, into the pandemic-driven online learning environment. Survey analysis explored the level of difficulty reported by subject coordinators for this translation online, and their suggestions of additional tactics or concerns.

Findings

While the low number of respondents limits these conclusions, initial analysis suggests that the identified *Tactics for Coordination* can be applied with relative ease to online learning environments. At the same time, the expected burgeoning of online education identified an expected increase in demand for these skills.

Originality

The authors identified a lack of literature addressing subject coordination as a key skill, or evaluating the coordination tactics, as well as a lack of resources for focused skill development. This paper addresses this gap, and prompts further and urgent response.

Introduction

Even without the additional challenges of a global pandemic, contemporary education of future built environment professionals requires an increasing set of skills. Educators are tasked with delivering content based on their professional expertise, must integrate learning activities on and off campus, and facilitate these as leaders of teaching teams. The expectations of today's university students have expanded beyond a focus on gaining skills and knowledge to encompass their broader study experience. As student cohorts continue to grow and diversify, coordinating teaching and learning activities at the subject level is an increasingly complex challenge. Just as a project management role takes on greater significance in large building projects, the coordinator of a large enrolment subject must direct significant effort toward the coordination of content and activity, and integration with other student experiences.

This balancing act has been assisted, or at least framed, by curated Learning Management Systems alongside the tacit understandings of face to face learning activities in the recent past. The wholesale dislocation of learning in 2020 has however highlighted the essential role of conscious and effective coordination for distributed online student cohorts, and the importance of these skills for subject coordinators in emergent teaching contexts.

This paper describes work by the [Author group] at the [Author institution] to support Subject Coordinators. We argue that coordination will have an increasingly important role in post-pandemic blended and online education, and will call for refined capacities and skills. We also suggest that as educational technology offers a plethora of options, subject coordinators will need to be critical of its application and impact on pedagogy and learning. We report in this paper on research reviewing the translation of *Tactics for Coordination* to emergent needs in online learning environments. [Authors] DIAgram, developed in response to the rapid move online, offers a representation of coordination in relation to foundational aims of learning engagement and learner belonging. The paper concludes by considering effective development of this increasingly important skill.

Background

The [Author group], within [Author faculty] at the [Author institution], is an academic group focussed on the sustained improvement of educational outcomes for built environment disciplines. Established in mid-2018, our approach is to apply creative problem-solving and design-led approaches, evidence-based research methodologies, and project-focused consultancy to improve teaching quality and student engagement. These orientations draw on the skillsets of [Author group] members, as designers and researchers from multiple disciplines, as well as the opportunity to engage with our Faculty as the location and inspiration, and also the beneficiary, of focused built environment learning and teaching research.

As we supported the Faculty to move teaching online in 2020 as a result of COVID-19, our design of a parti diagram as a 'spatialization of a selective abstraction' helped us to conceptualise and communicate this new world, guiding our actions and allowing us to consider their impact. A relational framework emerged through an iterative design process that was informed by engagement within the Faculty and with international colleagues who were also navigating these challenges. The framework

(Figure 1) was applied to the elements, influences, aims and mechanisms of built environments education. Our name for the resulting 'DIAgram' references three chief, interrelated tasks: how to **deliver** subject content, to support **interaction** between students and their peers and staff, and to effectively **assess** online. This DIA framework continues to challenge us to consider its application for the specifics of subject area, cohort and learning aims.

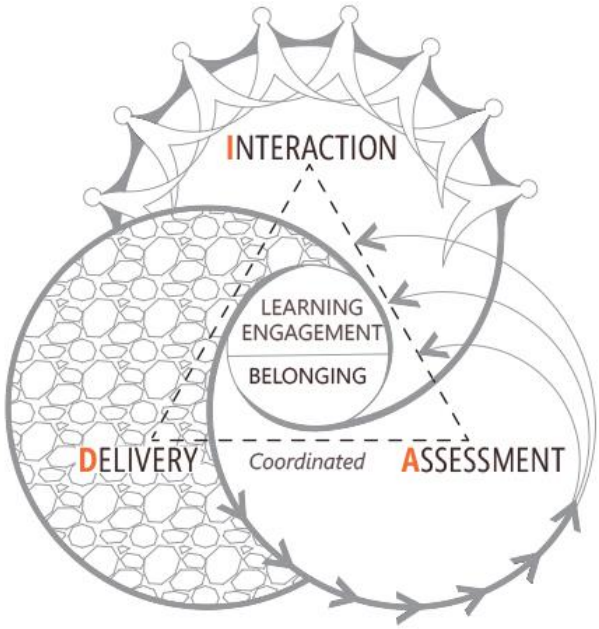

Figure 1: [Author group] DIAgram (2020); DOI 10.26188/12870047

In this paper, we explore the single element with the DIAgram--"coordinated". Graphically, it appears as a triangle reflecting its role as the "connective tissue" between delivery, interaction and assessment activities for teaching and learning. The DIAgram shows **learning engagement** and sense of **belonging** as the ultimate objective of a teacher's efforts, located at the centre of the design, which is enabled by the effective **coordination** of **delivery**, **interaction** and **assessment** activities.

Coordination refers to the 'behind-the-scenes' work required to plan and carry out meaningful learning experiences for students. Effective coordination has been identified by both students and educators as an essential foundation for valuable and meaningful learning experiences, and the reduction of student attrition. Our own review of student evaluations in 2019 found high levels of satisfaction in subjects with strong organisational foundations, and informed the development of a set of *Tactics for Coordination*. These tactics highlight the value of constructively aligned activities and assessments, clear and consistent lines of communication, and effective logistical preparations. Analogies from the design and construction industry underscore the value of project management skills.

What is subject coordination?

As a general term, coordination refers to the 'organisation of the different elements of a complex body or activity so as to enable them to work together effectively' (OED). In the Higher Education sector and the institutions and activities it includes, coordination assumes a different focus depending on the type

and scale of activity. At the sector level, governments have a role coordinating priorities for higher education in relation to national interest (McConnel, 1961). At an institutional level, governing bodies coordinate how faculty operations align with university strategy (NCCABS, 2005). At a faculty level, program coordinators have a myriad of responsibilities to ensure that the subjects that comprise programs align with faculty expectations of teaching quality, course objectives and compliance (Stuckleman, et al., 2017). Subject coordinators (a title which varies depending on one's institution – see below) are responsible for leading and managing academic activities of staff and students within individual subjects (Lefoe, et al., 2013; Kessell, 1995).

This paper is focused on subject coordination activities, and the *Tactics for Coordination* resource described below aligns with this subject-level tier of coordination. The tasks of a subject coordinator include both teaching and administrative duties (Cohen et al., 2007). The extent to which an individual subject coordinator will be involved in these duties varies across and within institutions. Typical teaching duties include designing the subject's curriculum and delivering subject content via lectures and tutorials (Percy, et al., 2008). The administrative duties may include managing student enrolment and teaching budget, record keeping, policy adherence, and general student counselling (Kessell, 1995). Embedded within the administrative duties are 'managerial duties' that relate to supporting sessional staff who contribute to the day-to-day teaching (Cohen, et, al., 2007). Commonly this involves subject briefings, weekly lesson plans and meetings, as well as moderation (Percy, et al., 2008). In this paper, we examine the 'behind-the-scenes' activities undertaken by subject coordinators to support student learning, outside of their work on subject content and/or the development of learning activities.

There is limited literature exploring the subject coordinator role in depth, and what is available is difficult to identify. The situation appears impacted by three apparent influences. First is the multifaceted nature of coordination at various tiers of the higher education system, as highlighted above, makes a definition complex and contested. Second, the challenge of definition (of both the term and the role) is made more difficult by the range of terms that describe the same or similar roles in different institutions: unit coordinator, module leader, course leader, unit convener, unit chair, course coordinator, etc. (Lefoe, et al., 2013). In this paper, the term 'subject coordinator' is adopted as it corresponds with the terminology used by the authors' institution to describe the role. Thirdly, literature on this topic appears limited as subject coordination is "just one responsibility encompassed in the [lecturer] role" (Roberts et al., 2011, p11), and further that the coordination aspect of the role "is unrecognised, hidden and poorly supported" (Lefoe, et al., 2013, p2). Despite these challenges, it became evident that students value subject coordination, and have their own understandings of the term and its significance. Their feedback further reminds us of the multiple agendas to which subject coordinators must respond.

According to de Pablos-Heredero, et al., (2013, p202) "the need [for] coordination is a pre-requisite to reach good results at organizations". Universities are no exception, where "the importance of properly coordinated processes has been positively related to *quality* in higher education*"* (Margalina, et al., 2015, p.1657). Although it may take various guises, coordination make a regular appearance when researchers attempt to identify commonly held dimensions of teaching effectiveness. For instance, Devlin & Samarawickrema (2010) cite various studies that include dimensions like clarity, organisation, preparation. Importantly, they also note that "collective understandings of effective teaching need to be periodically reviewed and renewed to absorb the transformations that are occurring within universities and beyond them" (p. 701). We are now most certainly facing a context when such a review would be

warranted. Changing student expectations, as well as larger and more diverse student cohorts, continues to increase the scope and significance of coordination in relation to teaching quality and the student experience. As Clement (2018) argues: "For decades, college instructors never thought of classroom management as something they had to plan, but times have changed and today's college students need to know what's happening." Within our own Faculty for instance, and its dedication to educating built environments professionals, it is now usual for individual subjects to be comprised of hundreds of students and dozens of staff, particularly in undergraduate studies. This scale and complexity demands a substantively and qualitatively different approach than the traditional model of the single instructor coordination of their own subject and student group. Of course, increasingly blended modes of delivery, or the online learning environment amplified by the COVID-19 pandemic exacerbates this trend.

Tactics for Coordination: Understanding student perspectives and responding with a staff resource

The [Author institution] conducts a Student Evaluation Survey (SES) at the end of every semester. These anonymous surveys follow the typical format of global higher education institutions to gauge student satisfaction with learning in identified subjects. Respondents are asked to rate the degree to which they agree with various statements about their experiences in a subject on a Likert scale, and may also respond to several open-ended questions. The results are intended to be used by subject coordinators and faculty-level administrators to improve teaching quality. Within our Faculty, the [Author group] and others have analysed results by program level, discipline and subject, in terms of overall mean scores and individual question responses. In 2018, the group worked with members of undergraduate and graduate studies committees to develop and test a protocol to identify subjects for additional support.

The [Author group] was tasked by the Faculty to review SES responses to identify areas for teaching improvement as part of the strategic plan. The group therefore undertook a review to identify areas that might benefit from support for teaching improvement. At the end of each semester in 2019, [Author group] was able to identify and share a general positive trend in student responses, and also proceeded to explore these in more detail. Using quantitative responses to the summative question as a guide (Q4: Overall, this subject has been well-taught), subjects receiving the highest, and the lowest, scores were identified. A representative balance of selected subjects across the discipline mix was also considered in the selection of a set. For the selected subjects, the highest or lowest 'other' Likert response was also identified and common pairings reviewed. This review identified a number of items valued by students in high scoring subjects. Low scoring responses at both undergraduate and postgraduate level included "Overall, this subject has been well-coordinated." This common factor was identified for focused exploration.

The definition of "well-coordinated" was not provided as part of the survey for students. [Author group] reviewed student responses to the SES's open-ended questions ("What were the best aspects of this subject?" and "What aspects of this subject do you believe should be improved?") in an attempt to clarify the collective student understanding of "coordination"—both positive and negative. The process identified comments that related to coordination issues, that were then coded and grouped into thematic clusters. This process produced five characteristics of coordination: *structured, cohesive, consistent, organized* and *clear* for further exploration.

Coordinators of selected subjects were invited to explore these issues further. They provided detail about the design and teaching of the subjects, and were asked to interpret representative phrases for the "well-coordinated" characteristics in the context of the subject and SES score. Through these productive meetings, as well as a series of facilitated group conversations with the same set of coordinators, the five characteristics of "well-coordinated" subjects were further explored and a set of tactics to support them were identified. The list of "things to consider" for each tactic, provided in the full resource, gave nuanced advice for application to particular subject types or cohort sizes. It is noted that the terms themselves are not necessarily those used by students in their survey comments. Students expressed satisfaction or frustration with particular approaches or situations —identification of themes and naming of characteristics produced a language and structure for the diverse ways that "coordination" was described. This approach has allowed a better understanding of teaching quality and coordination in terms of student expectations, and to work with staff to develop responses.

[Author group] produced and then shared a resource document, *Tactics for Coordination* for use by all teaching staff in the Faculty. Definitions of the five characteristics, and some tactic examples, are provided below in Table 1.

Table 1: Tactics for Coordination

Characteristic	*Definition*	*Examples of applying tactic*
STRUCTURED	To students, a well-coordinated subject is *structured*. This means that the subject content and activities follow a structure that is *logical, predictable and reasonable*.	1. Sign-posting at the beginning and/or end of lectures and tutorials; 2. Pacing student workload and communicating 'crunch times' 3. Allocating weighting of each assessment task to correspond to anticipated effort required
COHESIVE	To students, a well-coordinated subject is *cohesive*. This means that they recognise *alignment across lecture, assignment and tutorial content / activities.*	1. Aligning weekly content and learning activities to explicitly support learning aims 2. Designing tutorials to reinforce deeper/applied comprehension of that week's focus 3. Curating guest lecture content to align with current assessment task and content
CONSISTENT	To students, a well-coordinated subject is *consistent*. This means that students receive *consistent messages from all staff about subject expectations and objectives.*	1. Communicating regularly with your teaching colleagues to develop a consistent team approach 2. Sharing documents with tutors that provide a structure and set of objectives for each tutorial 3. Observing at least one of each tutor's sessions per semester
ORGANISED	To students, a well-coordinated subject is *organised*. This means that *staff planning for logistical issues enables a smooth learning experience* for students.	1. Scheduling and organising student access to learning spaces, equipment and off-site opportunities 2. Setting major deadlines carefully 3. Using Canvas or other online systems effectively to deliver the subject and enhance the student experience
CLEAR	To students, a well-coordinated subject provides *clear* documentation that is *straightforward and transparent*	1. Being predictable regarding timeframes and deliverables 2. Communicating the structure of the subject clearly to students 3. Connecting subject documentation to the University and ABP Faculty context

	in terms of information and expectations.	

Why coordination matters online

Margalina, et al., 2015, p1655 (citing Simpson 2012) claims that "online and distance education is the fastest growing area of education in both developed and developing countries". Growth and demand for online education has been be accelerated by COVID 19. In online environments, "e-learning is characterized by task interdependence, uncertainty, time constraints and tacit knowledge. In order to face all the challenges, e-learning institutions must develop mechanisms to reach better results in terms of quality and performance" *(*Margalina, et al., 2015, p.1666).

Ghazal, et al., (2018) identify that the "ability of instructors to control the progression of an online class and ensure that students are receiving appropriate learning opportunities" is directly related to learners' experiences and satisfaction in an online environment, relating to students' identification of 'structured' and 'organised' characteristics as key to their experience of well-coordinated subjects.

Similarly, Guardia, et al., (2013) highlight the importance of a clear learning plan and directions for effective online MOOC design for online learning. They argue that students need a clear study plan including milestones and deliverables, relating assessment tasks and learning, so they can plan their time and learning activities effectively. Students' increased independence is necessary for self-directed activities in an online environment, however they argue that the increased heterogeneity of the cohort calls for more support. Providing templates and a clear schedule of activities in this way aligns with students' descriptions of well-coordinated subjects as 'structured', 'cohesive' and 'clear'.

The Background section of this paper has introduced the [Author group] DIAgram – a relational framework designed by [Author group] to assist educators in the move online that was prompted by COVID-19. As above, the connective element of the DIAgram, ***coordinated,*** refers to the 'behind-the-scenes' work required to design and curate meaningful learning experiences for students, with the foundational aims of **learning engagement** and sense of **belonging** through the effective interrelation of **delivery**, **interaction** and **assessment** activities. Effective coordination has been identified by both students and educators as an essential foundation for valuable and meaningful learning experiences (Zehner *et al*., 2010), and the reduction of student attrition (Naylor et al., 2018).

Well-coordinated subject delivery, particularly online, could be understood as approaching the task 'as a designer'. Certainly it is of note that several approaches to online learning highlight the application of design thinking or design skills to education and learning, such as a 'backwards design' building toward identified learning outcomes (Wiggins and McTighe, 1998), or Swan's identification of constructivist and constructionist models for the design of learner, knowledge, assessment and community-centred online teaching (Swan, 2005).

Subject coordination in a post-pandemic world

The global lockdown of educational institutions worldwide due to COVID-19 certainly prompted "teaching moving online on an untested and unprecedented scale" (Burgess and Sivevertsen, 2020). At

the peak of the relocation and confusion many educators were "focused on the transfer of educational content to the digital world and not specifically on online teaching and delivery methods" (Adnan and Anwar, 2020). Educators quickly adopted "almost any available digital tools" to ensure the continuation of classes (Teras, et al., 2020, p2). Consequently, the EdTech Industry "celebrated" the pandemic as an "unexpected business opportunity, a tipping point after which schools and universities will finally adopt digital education as a mainstream mode of teaching and learning" (Selwyn, 2020).

While it seems likely that teaching and learning in the post-pandemic world will continue to involve technology through a blended model (Agarwal, 2020; Martel, 2020; Mishra, 2020), there are concerns about the long-term implications of the pandemic on education, and particularly the legacy of the 'emergency strategies' used to teach online. Hodges et al, (2020) argue that "well-planned online learning experiences are meaningfully different from courses offered online in response to a crisis or disaster". There remains a risk that without the right support in place, educators will continue to utilize the practices they adopted quickly in order to survive (Hodges et al, 2020). This includes a high level of reliance on digital platforms built by software developers with "little understanding of sound pedagogical principles" (Teras, et al., 2020, p. 3). This highlights the increasingly important role of good planning and subject coordination, as reinforced by St. Amour (2020) who argues

> *Now is not the time to hastily adopt new technology, rather, it's the time to return to the basics, figure out what works the best for the most people and ensure students are getting the basics they need in order to learn.*

This position is shared by Margalina, et al., (2015, p1661) who argues that the "quality of educational processes in e-Learning does not depend so much on the technology, but on the quality of the learner–instructor interaction". [Author group] posits through the DIAgram that the effective coordination of a subject in support of **learning engagement** and sense of **belonging** – drawing together the **delivery** of subject content, supportive **interaction** between students and their peers and staff, and effective online **assessment** – is a useful expansion of quality in these terms.

Survey Design

Despite the important role of the subject coordinator, and the many duties of that role, there is "little targeted support in place for unit coordinators to handle issues arising from leading a unit of study". (Pepper and Roberts 2016, p118 citing Cohen, Bunker & Ellis, 2007: Parrish & Lefoe, 2008: Lefoe, Parrish, Keevers, Ryan, McKenzie & Malfroy, 2013). Following the move online, we sought to investigate the translation of coordination tactics to online environments. While the *Tactics for Coordination* were devised with face to face teaching in mind, we hypothesized that the five characteristics were also applicable for coordinating online subjects. To test the hypothesis we developed a survey, and invited responses from the initial selection of participant subject coordinators. The survey was built in Qualtrics with the following three sections:

- Section 1 was designed to collect contextual information about the respondent and the subjects they were coordinating. We asked them to identify their discipline, the level of the student cohort they were teaching, the relevant semester/s in which their subject ran, and whether their subject was full-length (12 weeks) or ran as an 'intensive' (5 or 10 days).

- Section 2 was the largest of the three sections and was designed to collect information about the respondent's experience applying the five tactics for teaching online. For this we used a Likert scale (Likert, 1974) with skip logic and branching to tailor the questions and elicit more detail depending on the answers (Lavrakas, 2008). The Likert scale was used to ascertain 'how easily' the subject coordinators could apply each tactic (listed individually) to the online environment. A five-point scale was used: '1= Extremely difficult', '2= Moderately difficult', 3= Neither easy or difficult', '4= Moderately easy' and '5= Extremely easy'. A definition for each tactic was provided, along with examples of how the they might translate to an action, to assist respondents. These definitions were as set out in Table 1.

  The survey branching and skip logic came into effect if a respondent had experienced some difficulty applying the tactic to an online environment. In these cases, they were asked to describe their experience (open text field). They were then asked whether they had, as a result of the difficulty, developed a new tactic. If they had developed a new tactic, they were asked to provide more details (open text field). We chose to only investigate 'difficult' situations in order to identify possible 'corrective action' or new tactics for revised guidance, an approach supported by Finkelstein and Fishbach (2012).

- Similarly, Section 3 was designed to collect information that could help us adapt and/or expand the tactics for online environments. The open-text field question asked respondents to suggest any additional characteristics that might be added to the five already identified. This question was intended to be forward-thinking and to encourage respondents to reflect broadly about their experience of teaching online.

Survey Findings

The survey was piloted by members of the expanded [Author group] team and emailed to 18 subject coordinators who participated in the initial exploration of the tactics. The email was sent in Week 3 of Semester 2 and the survey was open for eight days. Eleven subject coordinators representing six of our Faculty's programs completed the survey. Seven of the respondents taught in a single program, while four taught in multiple programs. The largest number of respondents (six) were from the Architecture program. Regarding the student cohort, all the respondents had experience in coordinating postgraduate subjects. Five of the respondents exclusively coordinated postgraduate subjects, while the remaining six coordinated both undergraduate and postgraduate subjects. None of the respondents coordinated only undergraduate subjects. All the respondents were coordinating subjects in Semester 1, during the shift to online learning. Eight of the respondents were also coordinating subjects in the current semester (Semester 2). Five of respondents were coordinating intensive subjects.

We treated the quantitative portion of the survey results as nominal data and analyzed it by collapsing the responses for each tactic into binary classes (difficult, neutral, easy) and counting the number of responses in each class (Mangiafico, 2016). This method was chosen because of the small sample size (n=11) and objective of the research, which was to learn more about the subject coordinators' overall experience of applying the five tactics to the online environment. Also, across the dataset for all tactics, the option 'extremely difficult' on the Likert scale was not utilized, while 'extremely easy' was rarely

utilized; only four times across all the tactics - once in relation to 'structured' and 'organized', and twice in relation to 'clear'. The bar chart in Figure 2 provides a summary of the results, which can be explained using the qualitative portion of the survey results.

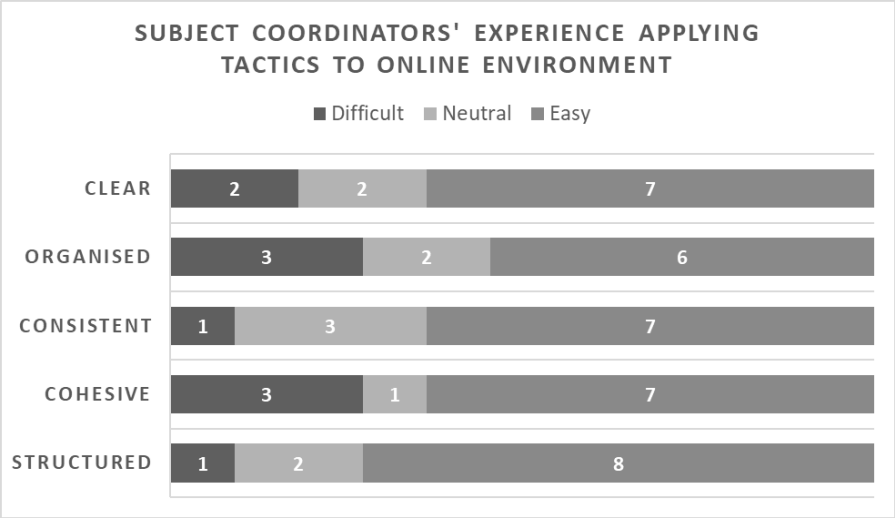

Figure 2: Subject coordinators' experiences applying *Tactics for Coordination* in an online environment

While the low number of respondents limits these conclusions, this initial analysis suggests that the *Tactics for Coordination* can be applied, with relative ease, to online environments. The easiest tactic to apply online is being 'structured', with 73% of respondents responding favorably the question. The single respondent who experienced some difficulty with being structured online, declined to provide any details about their experience.

Overall, respondents identified 'organized' as the most difficult of the five characteristics to apply online. Just over half the respondents (55%) applied the tactic with some degree of ease. The three respondents who experienced some difficulty being organized online provided an account of their experience but did not develop any new tactics to help them overcome the difficulty. Two of three respondents attributed the difficulty they experienced to the use of Canvas, the Faculty's Learning Management System (LMS), which was newly introduced across the University at the commencement of 2020. The relationship between Canvas and being organized may require more exploration, involving a larger sample, before firm conclusions can be drawn. Staff association of Canvas with 'being organised' may be attributed to the *Tactics for Coordination* description "…using Canvas or other online systems effectively to deliver the subject and enhance the student experience". The concerns expressed by respondents related to using Canvas as a "one-stop platform for teaching"; and the time required to become proficient in using Canvas and adapt their courses. One respondent commented that it was "far easier" to email students a PDF of the subject outline which set out how the subject was organized.

Seven respondents (64%) were able to apply the remaining three tactics with a degree of ease. A higher number of respondents experienced a degree of difficulty being 'cohesive' online. In all three cases the difficulty arose from the large amount of course material that staff wanted to share. Respondents felt that the focus on asynchronous delivery meant that students could not find the content, were at different points in the detail, or were overwhelmed by amount of content and didn't complete some activities or engage with some of the materials provided. As a consequence, they suggested students

were not seeing the alignment cross lectures, tutorials and assignments. To overcome this difficulty the three respondents all developed new tactics. Two of these approaches reinforce the need for subject coordinators be explicit in online environments about *what* students need to do by *when*. 'Sign-posting' and a course 'road-map' proved to be helpful learning tools. The third respondent restructured their course content into "digestible and consistent" packages, and during their asynchronous recording used a bell to signify a slide change.

Being 'clear' was the most polarizing tactic with equal numbers of respondents finding it either 'extremely easy' or 'moderately difficult' to apply to an online environment. For one respondent, an integral part of being 'clear' is using students' body language as an indicator of whether or not they have understood. Anecdotally this is a challenge that many staff face in online environment and the strategies for overcoming it are varied. In the survey the respondent described inserting deliberate pauses into lectures for Q+A, and also encouraging students to use the chat function. This is of course only possible during synchronous lectures, which may bring other challenges such as equity and accessibility (Hamraie, 2020) which are beyond the scope of this paper.

The final section of the survey invited respondents to describe a tactic for teaching and learning online that may be missing from original *Tactics for Coordination*. Six respondents [PS1][KT2][PS3][KT4]supplied an answer to this question. Three recommended actions similar to those relating to the existing tactics, but offering further examples of how that tactic might be applied. The additional time needed to coordinate online learning was highlighted by the respondents.

Future of teaching – after the 'pandemergency'

Despite still being amidst the unfolding disruption of COVID-19, our attention turns to exploring what the future of higher education might look like in a post pandemic world. Here we draw on some ideas raised by Salama (2020), as well as our colleagues at the *Melbourne Centre for the Study of Higher Education*. Using a PESTEL analysis, Croucher and Locke (2020) describe 10 ways that higher education may be impacted by COVID-19 at different points in the future. Two of the trends point towards a significant change in *how* and to *whom* higher education is delivered.

The 'how' recognizes the "growing student acceptance of online study" (Croucher and Locke citing Barn, 2020). As already outlined in this paper, the pandemic has been the tipping point for education to adopt online learning (Selwyn, 2020). New educational technology has emerged (Teras, et al., 2020) as large numbers of educators have experimented with new methods of online delivery, interaction and assessment. While this new knowledge of teaching and learning online will continue to be utilized into the future, the "current experiment with online teaching is providing universities with real-time data about which aspects of their courses can be substituted, complemented or augmented and which can't be replaced by the digital medium" (Govindarajan and Srivastava, 2020). This combined with student preference for face-to-face teaching (Abbasi, et al, 2020) suggests that universities will adopt a hybrid or blended learning model, once it is deemed to be 'safe' to return to campus (Agarwal, 2020; Martel, 2020; Mishra, 2020). The question of 'when' it will be safe remains at large and the growing uncertainty is alluded to by Salama (2020) through his reference to the work of Litchfield (2020). How long the pandemic will run, and continue to cause disruption, was a question raised by Litchfield (2020). For an answer, Litchfield cites researchers from the Imperial College of London (Ferguson, et al., 2020), who have modelled the effects of COVID-19 suppression strategies in the United Kingdom. They forecast that "school closures will be in force some two third of the time – roughly two months on and one month off

– until a vaccine becomes available, which will take at least 18months" (Litchfield, 2020, citing Ferguson, et al., 2020). This forecast applies to the period between March 2020 to November 2021. What happens in the USA will likely mirror the experience of the UK (Litchfield, 2020).

The 'whom' recognises the diminishing ability for international students to travel and study abroad (Croucher and Locke citing Academica Group, 2020); as well the growing numbers of domestic students who will choose to not be on campus (Croucher and Locke citing Govindarajan and Srivastava, 2020). Such decisions may relate to students' lifestyle or the desire to 'socially distance', which Salama (2020, p. 4, citing Lichfield 2020) argues "will upend our way of life, in some ways forever". Therefore, while universities may aim to adopt a blended or hybrid learning model, part of their offering will need to remain *entirely* online in order to retain and/or attract the enrollments of students who cannot, or will not be on campus (Davies, 2020). Therefore, to ensure quality, the methods used to teach courses entirely online will need to be evaluated. Especially if they were developed in haste, during the pandemic, as "improvise[d] quick solutions in less than ideal circumstances" (Hodges, et al., 2020).

The above discussion of 'how' and 'whom' are tightly intertwined issues, which at their core are about providing students with options regarding the provision of quality teaching and learning. Regardless of whether its online, on campus, or is a mix of both, ensuring 'quality' will require good coordination (Ghazal, et al., 2018; Guardia, et al., 2013). Through developing the *Tactics for Coordination,* we learnt what students perceive 'well-coordinated' subjects to look like. The importance of those five characteristics are reinforced by the body of grey literature emerging about student perceptions of online learning during the pandemic, and specifically, the things that concern them about continuing to learn online during these uncertain times. The main concern of 7400 current and prospective international students surveyed in March 2020 about learning online was 'staying focused and self-motivated'. This includes concerns about not being able to "keep track of assignments and due dates" (Witherow, 2020). Another notable concern of students was not being able to understand the teaching material in an online format. These two concerns relate back to the importance of actions that the *Tactics for Coordination* promote. Specifically, the need to for subject coordinators to **structure** content so that it is logical, predictable and reasonable; as well as provide students with **clear** documentation that is straightforward and transparent in terms of information and expectations.

Our survey of subject coordinators confirmed that the *Tactics for Coordination* can be applied, with relative ease, to online environments. However also confirmed the need for educators be explicit, when teaching in online environments, about *all aspects* of the learning experience. Therefore, we plan to expand our definition of 'clear' to apply to *all correspondence*, rather than be limited to course documentation. While this change is only subtle, it is significant as it represents the necessary fine tuning of a much-needed resource where "there are virtually no instances of formalized standards of practice" (Percy, et al. 2008, p13) and "little targeted support"(Pepper and Roberts, 2016, p118). Reviewing *Tactics for Coordination* in the context of the disruption caused by COVID-19, was done to offer Subject Coordinators the kind of "just in time, just for me" training resources that "focus on a real world dilemma" being called for Peppers and Roberts (2016, p118 citing Scott, Coates and Anderson, 2008 and Percy, et al., 2008).

Conclusion

Alongside other areas of society, post-pandemic education will be impacted by spatial and technological shockwaves. While the pandemergency has prompted significant expansion of online learning, and new

skills developed by educators and students, emerging challenges and structural responses will call for further extension of these. This paper has identified “subject coordination” as an oft-overlooked skill that has quietly increased in significance alongside the increasing scale and diversification of the contemporary student cohort. In a post-pandemic education context, the paper argues that this skill will be increasingly in demand.

The paper has reviewed subject coordinators’ reported experiences, as they translated previously-identified characteristics of good coordination, and tactics for their application, to an online learning environment. These characteristics suggest that well-coordinated subjects are: structured; coherent; clear; consistent; and organised. The research has found the translation of the related tactics to an online environment was relatively straightforward, but that further exploration of this is needed.

In specific terms, we would suggest that subject resources and activities may take different forms and formats within an online environments, in an LMS subject site arrangement, and that therefore articulation of a logical structure should be effectively presented to students. Further that students may be working individually and also collaboratively, with these efforts distributed over space and time, such that coherent constructive alignment of these resources and activities is also necessary. Clear expectations for those activities should also, therefore, be communicated to students. This is particularly important if learning experiences include on and off campus locations, and online engagement, so preparations for these should be carefully and overtly organised. Where this activity is supported by tutors, or other teaching assistants or colleagues who may also be working remotely, communications with students must be consistent to provide clear guidance.

While the “pandemergency” has prompted much development of "just in time" technological solutions, a critical and informed, student-focused, response is needed to support effective pedagogies in the next normal. More support for the development of learning-specific coordination skills is needed, and a better understanding of the markers of coordination quality, to inform this crucial work.

References

Abbasi, S., Ayoob, T., Malik, A., & Memon, S. I. (2020). Perceptions of students regarding E-learning during Covid-19 at a private medical college. *Pakistan journal of medical sciences*, *36*(COVID19-S4), S57–S61. https://doi.org/10.12669/pjms.36.COVID19-S4.2766

Academica Group. 2020. Delayed, Deferred, Determined: International Prospective Students discuss Fall 2020. Academica forum. Retrieved from https://forum.academica.ca/forum/an-education-at-a-global-distance-international-prospects-discuss-covid-19 Accessed 12 Oct 2020

Adnan, M., Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45-51

Agarwal, A. 2020. Blended Learning is the ‘New Normal’ and Here’s Why. edX. Retrieved from https://blog.edx.org/blended-learning-new-normal/ Accessed 12 Oct 2020

Barn, B. 2020. The digitalisation of the university. Wonkhe. Retrieved from https://wonkhe.com/blogs/the-digitalisation-of-the-university-2/ Accessed 12 Oct 2020

Burgess, S., & Sievertsen, H. H. (2020). Schools, skills, and learning: The impact of COVID-19 on education. CEPR Policy Portal. Retrieved from https://voxeu.org/article/impact-covid-19-education Accessed 12 Oct 2020

Clement, M. (2018). Six Things that Make College Educators Successful. Faculty Focus. Retrieved from https://www.facultyfocus.com/articles/effective-teaching-strategies/six-things-make-college-teachers-successful/ Accessed 12 Oct 2020

Cohen, L., Bunker, A. & Ellis, R. (2007) Exploring the role of unit coordinators within universities, in Enhancing Higher Education, Theory and Scholarship, Proceedings of the 30th HERDSA Annual Conference, Adelaide, 8-11 July 2007: pp 111.

Croucher, G., Locke, W. (2020). A post-coronavirus pandemic world: some possible trends and their implications for Australian higher education. Melbourne Centre for the Study of Higher Education. The University of Melbourne, Melbourne.

Davies, A. (2020). Australian universities Future shock: how Australia's universities are changing after the coronavirus cataclysm. *The Guardian*. 26 July.

De-Pablos-Herederos C., Montes-Botella, J., Santos I. (2013). Coordination and University Results: an evaluation model, *Pensée Journal*. 75(12), p3-20

Devlin, M., Samarawickrema, G. (2010). The criteria of effective teaching in a changing higher education context, Higher Education Research & Development, 29:2, 111-124, DOI: 10.1080/07294360903244398

Ferguson, N., Laydon, D., Nedjati-Gilani, G., Imai, N., Ainslie, K., et al., Impact of Non-Pharmaceutical Interventions (NPIs) to Reduce COVID-19 Mortality and Healthcare Demand. Imperial College COVID-19 Response Team, London. doi:10.25561/77482

Finkelstein, S.R., Fishbach, A., (2012). Tell Me What I Did Wrong: Experts Seek and Respond to Negative Feedback. Journal of Consumer Research.. doi:10.1086/661934

Ghazal, S., Al-Samarraie, H., Aldowah, H. (2018). I am Still Learning: Modeling LMS Critical Success Factors for Promoting Students' Experience and Satisfaction in a Blended Learning Environment, In *IEEE Access*, vol. 6, pp. 77179-77201, doi: 10.1109/ACCESS.2018.2879677.

Govindarajan, G., Srivastava, A. (2020). A Post-Pandemic Strategy for U.S. Higher Ed. Harvard Business Review. Retrieved from https://hbr.org/2020/06/a-post-pandemic-strategy-for-u-s-higher-ed Accessed 12 Oct 2020

Guàrdia Ortiz, L., Sangrà Morer, A., Maina, M. (2013). *MOOC Design Principles. A Pedagogical Approach from the Learner's Perspective*. www.elearningpapers 33, May 2013. Accessed 10 Oct 2020.

Hamraie, Aimi. 2020. "Accessible Teaching in the Time of Covid 19." *Mapping Access*. Retrieved from: https://www.mapping-access.com/blog-1/2020/3/10/accessible-teaching-in-the-time-of-covid-19. Accessed 12 Oct 2020

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. EDUCAUSE. Retrieved from

https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning Accessed 12 Oct 2020

Kessell, S. R. (1995). The undergraduate course controller: Mentor or masochist? In Summers, L. (Ed), A Focus on Learning, p135-138. Proceedings of the 4th Annual Teaching Learning Forum, Edith Cowan University, February 1995. Perth: Edith Cowan University. http://lsn.curtin.edu.au/tlf/tlf1995/kessell.html

Lavrakas, P.J. (2008) Encyclopedia of survey research methods. Sage Publications, Inc., Thousand Oaks

Lefoe, G. E., Parrish, D. R., Keevers, L. M., Ryan, Y., McKenzie, J. & Malfroy, J. (2013). A CLASS Act: The teaching team approach to subject coordination. Journal of University Teaching and Learning Practice, 10(3). http://ro.uow.edu.au/jutlp/vol10/iss3/8

Likert, R. (1974). A method of constructing an attitude scale. In Scalling: A Sourcebook for Behavioral Scientists, edited by G. M. Maranell, 233–43. Chicago: Aldine.

Lichfield G: We're not going back to normal. MIT Technology Review–Tech Policy. Retrieved from https://www.technologyreview.com/2020/03/17/905264/coronavirus-pandemic-social-distancing-18-months/

Mangiafico, S.S. (2016). Summary and Analysis of Extension Program Evaluation in R, version 1.18.1. Retrieved from: https://rcompanion.org/documents/RHandbookProgramEvaluation.pdf

Margalina, V., De-Pablos-Heredero, C., Montes-Botella, J. (2017) Achieving quality in e-Learning through relational coordination, Studies in Higher Education, 42:9, 1655-1670, DOI: 10.1080/03075079.2015.1113953

Martel, M. (2020). COVID-19 Effects on US Higher Education Campuses, Report 3. Institute of International Education. Retrieved from https://iiepeer.org/article/covid-19-effects-us-higher-education-campuses

McConnel, W.R. (1961). Coordination of Higher Education. https://doi.org/10.1177/106591296101400360

Mishra, S. (2020). Blended learning is the way forward after the pandemic. University World News. 30 May.

Naylor, R., Baik, C., & Arkoudis, S. (2018). Identifying Attrition Risk Based on the First Year Experience. *Higher Education Research & Development*, 37(2), 328-342

NCCABS (National Committee of Chairs of Academic Boards and Senates) (2005). The purpose and function of academic boards and senates. Retrieved from: www.gsu.uts.edu. au/cabs/061/papers/061-attachment-b.pdf

OED (Oxford English Dictionary)

Parrish, D. & Lefoe, G. (2008). The GREEN Report: The development of leadership capability in higher education. Report for the Australian Government Department of Education, Employment and Workplace Relations. CEDIR, University of Wollongong. http://www.uow.edu.au/cedir/DistributiveLeadership/docs/GREEN_Report.pdf

Pepper, C. & Roberts, S. (2016). Valuing the leadership role of university unit coordinators. Issues in Educational Research, 26(1), 117-130. http://www.iier.org.au/iier26/pepper.pdf

Percy, A., Scoufis, M., Parry, S., Goody, A., Hicks, M., Macdonald, I., Martinez, K., Szorenyi-Reischl, N., Yoni, R., Wills, S., Sheridan, L. (2008). *The RED report: recognition, enhancement, development: the contribution of sessional Educatorsto higher education*. Sydney: Australian Learning and Teaching Council. https://ltr.edu.au/resources/grants_sessionalteachers_report_june08.pdf

Roberts, S., Butcher, L. & Brooker, M. (2011). Clarifying, developing and valuing the role of unit coordinators as informal leaders of learning in higher education. Australian Learning and Teaching Council. http://www.tlc.murdoch.edu.au/project/ucall/docs/FinalReport_UCaLL_Nov10.pdf

Salama, A. (2020). Coronavirus questions that will not go away: Interrogating urban and socio-spatial implications of COVID-19 measures. *Emerald Open Research*. pp. 2-14

Scott, G., Coates, H. & Anderson, M. (2008). Learning leaders in times of change. Sydney: Australian Learning and Teaching Council and Australian Council for Educational Research. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=higher_education

Selwyn. N. (2020). After COVID-19: The longer-term impacts of the coronavirus crisis on education. Melbourne: Monash University. https://educationfutures.monash.edu/all%2D%2D-present/after-covid-19 Accessed 12 Oct 2020

Simpsons, O. (2012). Supporting Students in Online, Open and Distance Learning. New York: Routhledge.

St. Amour, M. (2020). Privacy and the online pivot. Inside Higher Ed, 25 March. insidehighered.com/news/2020/03/25/pivot-online-raises-concerns-ferpa-surveillance Accessed 12 Oct 2020

Stuckelman, J., Zavatchen, S., Jones., S. (2017). The evolving role of the program coordinator: five essential skills for the coordinator toolbox. *Acad Radiol*. 2017;24:725–729.

Swan, K. (2005). A Constructivist Model for Thinking about Learning Online. In J. Bourne & J. C. Moore (Eds), Elements of Quality Online Education: Engaging Communities. Needham, MA: Sloan-C. *Research Center for Educational Technology, Kent State University*.

Teräs, M., Suoranta, J., Teräs, H., & Curcher, M. (2020). Post-Covid-19 Education and Education Technology 'Solutionism': a Seller's Market. *Postdigital Science and Education*, 1–16. Advance online publication. https://doi.org/10.1007/s42438-020-00164-x

Wiggins, G. and McTighe, J. (1998). Understanding by design. Alexandria, VA: Association for Supervision and Curriculum Development.

Zehner, R., Forsyth, G., de la Harpe, B., Peterson, F., Musgrave, E., Neale, D., Watson, K. (2010). Optimising studio outcomes: Guidelines for curriculum development from the Australian studio teaching project. Paper presented at the *2nd International Conference on Design Education*, Sydney.