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Author
Bartlett, Lora

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Specifying Hybrid Models of Teachers' Work during COVID-19

Professor Lora Bartlett
University of California, Santa Cruz

Author Bio:
Lora Bartlett, PhD., is associate professor of education at the University of California, Santa Cruz, 1156 High Street, Santa Cruz, CA 95064. LoraB@ucsc.edu Her research focusses on schools as workplaces for teachers and teachers' lived experience of school organizations and the teaching profession.

Specifying hybrid models of teachers' work during COVID-19

Abstract

The term "hybrid" emerged as a common descriptor of pandemic-modified schooling configurations. Yet this umbrella term insufficiently captures the variations among hybrid models, particularly as it pertains to the structure of teacher workdays and related workload demands. Drawing on qualitative research documenting K-12 U.S. teachers' experience teaching during COVID-19, this brief introduces and explicates three terms specifying structural hybrid models — parallel, alternating, and blended — and their implications for teachers' work. Differentiating among the models facilitates future analysis of the implications of hybrid schooling for teacher and student experience. Initial analysis indicates teachers experienced one model, blended hybrid, as more challenging than others. This teacher perception highlights the need to discern among the three hybrid models more closely when analyzing schools' responses to the pandemic. Differentiating among hybrid models may prompt future analysis of hybrid schooling for teacher workload and student learning.

Introduction

The term "hybrid" emerged as a common descriptor of schooling configurations in the fall 2020 pandemic schooling responses. The rationale for hybrid schooling included enabling safety protocols; accommodating students' varied modality preferences; and improving the quality of learning experiences by creating an in-person aspect to mitigate the limitations of remote-only schooling. In an October 2020 survey of educators, Edweek Research Center found "close to two thirds of district leaders said their school systems are doing hybrid learning" (Lieberman, 2020). But what does it mean to be "doing hybrid?"

Despite the prevalence of references to pandemic hybrid schooling, the term hybrid offers little definition or detail beyond indicating that it affords some combination of in-person and remote instruction. Drawing on an on-going study of teachers' work during the pandemic, this research brief defines three variations of school hybrid models adopted during the fall 2020 pandemic response: 1) the parallel hybrid model divides the school into separate pathways, one remote and another in-person, 2) alternating hybrid cycles students in and out of the building, and 3) blended hybrid mixes in-person and remote students in the same class. In delineating these models, this brief illuminates the associated demands placed on teachers and lays the ground work for more specified discourse in research and policy analysis regarding pandemic hybrid schooling.

Methods

Seventy-five teachers from nine states were interviewed and surveyed about their experiences as teachers during COVID-19.[1] Teachers represented a range of demographics, teaching experience, school level, and state and community context. Although not a representative sample, the sample is reflective of the US teacher labor workforce (Table 1).

Table 1: Details on teacher sample (N=75) in comparison to US teacher labor market 2017-18

	Gender & Race		Grade level taught		Geography			Years Teaching Experience[2]		
	Female	White	9-12	PreK-8	Urban	Suburban	Rural	1-10	11-20	>20
Teacher Sample	76%	72%	45%	55%	31%	40%	25%	37%	36%	27%
US Teachers 2017-18[3]	77%	79%	49%	51%	29%	39%	21%	37%	40%	23%

This brief is drawn primarily from seventy-five teachers' survey responses (November, 2020), and two semi-structured interviews with thirty-six focal teachers (Summer & December, 2020). The interviews focused on teachers' navigation of pandemic teaching and their views of district and school arrangements. Interviews were coded for school-level hybrid offerings, hybrid student learning configurations, and individual teaching assignments. The appendix (online only) includes tables summarizing the teaching situation of each focal teacher working in a hybrid school. Online Tables A1 and A2 indicate: 1) which teachers work in a single mode (either in-person or remote) and which experience dual mode assignments, assigned to teach both remote and in-person students in the same class, and specify 2) whether remote instruction is conducted synchronously or asynchronously.

Results

Analysis of survey and interview data reveals three models of hybrid school configurations that differ significantly in structure and experience. Distinguishing these three models allows more specified analysis of how teachers and students experienced hybrid schooling during the Fall 2020 pandemic.

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[1] More details available on the Suddenly Distant Research Project website: https://sites.google.com/ucsc.edu/suddenlydistant/home

[2] The US and research sample teacher experience data do not map directly as the experience percentages are reported by NCES as 0-9 and 10-20 years while the research sample used 1-10 and 11-20 years. They are shared here anyway as an indication of the overall pattern.

[3] Source: USDOE NCES https://nces.ed.gov/programs/coe/indicator/clr

The multiple meanings of hybrid

Of the 36 focal teachers, 22 (61%) reported working in a school model they self-described as "hybrid" in Fall 2020. However, in December 2020 interviews, structural variations were made evident by those same teachers' more detailed accounts of how in-person and remote arrangements were locally combined. Interview analysis and coding identified three distinct schooling hybrid configurations: parallel, alternating, and blended.

The **parallel hybrid school model provides two independent options: either 100% remote or 100% in-person**. Students opt for fully remote or fully in-person learning, and teachers are assigned to either in-person or remote teaching as their school splits classes or grade levels into the two parallel pathways. Six of the twenty-two teachers (27%), worked in this parallel hybrid arrangement where, for any given teacher or student, teaching and learning occurred in only one modality.

The **alternating hybrid school model combines in-person and remote instruction for both students and teachers**. Each teacher is assigned a class of students who are divided into two groups that alternate between in-person learning and remote learning (e.g., the A/B schedule). Schools differ in how they alternate student groups, with some splitting the day in half, others the week in half, and still others alternating weekly. Teachers are responsible for teaching both their online students and their in-person students, but not at the same time. Four of the twenty-two teachers (18%) experienced the alternating model where each of them only ever taught in one mode at a time.

The **blended hybrid school model combines fully remote and fully in-person students in the same class with one teacher assigned to instruct in both modalities at once.** Each teacher is assigned a class populated by students who are a mix of in-person and remote, with the remote students expected to participate synchronously online. Seven (32%) of the twenty-two teachers experienced this simultaneous form of in-person and remote teaching

In addition, five (23%) of the twenty-two teachers worked in schools that combined the **alternating & blended model**s. In those schools, teachers were responsible for three to four groups of students: groups A and B alternating between being in person and remote while a group C is fully remote, and sometimes a group D that is always in-person.

Table 2 captures the variations of the hybrid models and the characteristics of teachers in each. For example, in the blended model, teachers are assigned to teach both in-person and remote at once (Teacher 2 modes) but each student only receives instruction in one mode. Further, all (7) teachers working in blended hybrid models were middle and secondary school teachers and most of them (5) worked in rural schools.

Table 2: Hybrid Models by Teacher Characteristics & School Type (N=22)

	Teacher 2 Modes	Student 2 Modes	# T[4]	% T	K-5	6-12	Rural	Suburb	Urban	Town
Parallel	No	No	6	27%	2	4	2	1	2	1
Alternating	Yes (time varied)	Yes	4	18%	2	2	0	2	2	0
Blended	Yes	No	7	32%	0	7	5	1	1	0
Alt + Blend	Yes	Varies	5	23%	0	5	3	1	1	0

Variations in demands on teachers

This section exemplifies the analysis made possible by the clear specification of hybrid model variations called for in this brief. The three hybrid models place different demands on teachers with respect to workday and load. Teachers working in parallel hybrid encounter the fewest new demands, although those teaching in person must navigate the trade-offs between classroom safety protocols and supporting student learning (for example, limits on having students collaborate); those teaching fully remote must adapt curriculum and instruction to suit online platforms, find ways to keep students engaged and supported, and troubleshoot ongoing technology issues. Meanwhile, teachers in alternating hybrid settings face the combined challenge of both the in-person trade-offs and the remote adaptations and technology issues.

The greatest challenges arise when teachers must blend instruction modes in the same classroom, especially when they must simultaneously teach both synchronously online and in-person. [5] Consider this scenario, in which an urban Florida high school history teacher manages three devices in an effort to engage both the in-person and remote students:

> [A]t all times I have three devices going. I have the desktop that goes to the smart board for the students who are face to face and also at home. Then I have my [school] laptop to monitor anything if students email me during class that they're having technical difficulties. And then I have my personal laptop on so the students can see me with Microsoft Teams. So, I have three different devices all at the same time. (T17, Dec 6, 2020)

The teacher adds:

> A lot of the students who are face-to-face tell me, 'The teachers ignore me, they ignore us, and they just sit behind the desk and talk to the laptop.' And some [remote] students say, 'The teacher only talks to the people who are face-to-face.' I try to address both and engage everyone and when we do breakout rooms, I mix students who are face-to-face with students who are at home, but it's so hard. (T17, Dec 6, 2020)

Teachers assigned to alternating and blended forms of hybrid sometimes coped by relying more heavily on asynchronous instruction for students learning at home. They did so to accommodate

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[4] T = teachers
[5] Raes et al. (2020) detail the challenges of synchronous hybrid for teachers.

technical limitations and to lessen the instructional workload demands of teaching in two modalities at once. For example, one rural Kentucky high school social studies teacher described her initial experience with blended hybrid as "chaos" caused by efforts to address two very different sets of instructional needs:

> We realized that [blended hybrid] was chaos and it wasn't working because the virtual kids were having issues. When I would explain things to them virtually, they would hear what I would say to the in-person kids and they would be like, 'Well, that's not what it looks like for me [online].' (T47, Dec 16, 2020)

By shifting to more asynchronous instruction, her teaching team alleviated classroom chaos but also reduced academic content and teacher-student interactions for those students learning remotely:

> We ended up meeting with our virtual kids during homeroom [instead of in class] but it was only 30 minutes a day. . . so I cut out a lot of stuff, that I had kids do in-person that was good and would help them, that I just didn't make my virtual kids do. (T47, Dec 16, 2020)

Teachers commonly described the blended arrangements as "exhausting," requiring modifications to their workday and load that compromised the academic learning opportunities and socio-emotional support they could provide to students. Techers found a variety of coping mechanisms. Of the twelve teachers assigned a blended hybrid classroom, only three sustained synchronous instruction of both modes. Another five, like the Kentucky teacher cited above, shifted the remote students to asynchronous learning. One teacher (with a medical-waiver) was themself remote and taught all students online including those physically present in school. And for three teachers, concerns about the challenges and limits of the blended model caused their districts to abandon the blended model. Citing high levels of student failures, these three districts replaced the blended model with the more sustainable parallel model.

Conclusion

Differentiating among three hybrid models – parallel, alternating, and blended - yields a more nuanced and useful exploration of hybrid schooling during COVID-19, helping to account for observed variations in teachers' pandemic-related teaching experience, to anticipate corresponding variations in students' experience, and to inform decision-making. Without clear definition and articulation of the design and implementation of hybrid schooling, pandemic research is incomplete and vulnerable to misleading findings that fail to account for the significant variations subsumed under the overarching term of hybrid.

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Table A1: Teaching situation of focal teachers with dual mode assignments (N=13)

T#	State	Grades	Community	School Model	Teacher Mode	Remote Synchronous	Dual Mode Assignment	Details on teacher working situation
T63	KY	3rd-5th	Suburban	Alternating	Alternating	No	Yes	Teacher assigned an A/B schedule with A in person M/W and B on T/Th. The teacher assigned students asynchronous work for the 3 weekly remote days.
T43	AZ	9th-12th	Rural	Alternating & Blended	Alternating & Blended	No	Yes	Assigned an A/B/C schedule with A & B alternating in-person two days and remote two days a week. C students are full time remote from home. Teacher assigns asynchronous work to all remote students.
T44	IA	6th-8th	Rural	Alternating & Blended	Alternating & Blended	No	Yes	Assigned an A/B/C schedule with C students full time remote and spread between groups A and B. Groups A and B alternated between two days in-person and two days remote. The teacher briefly tried to teach both synchronously, deemed it untenable, and shifted to posting asynchronous assignments for remote students.
T07	IA	6th-8th	Rural	Blended	Blended	No	Yes	Teacher and most students are in-person but a few students with medical exemptions are enrolled in the same classes & taught asynchronously
T47	KY	9th-12th	Rural	Blended	Blended	No	Yes	Teacher assigned that were half remote & half in person simultaneously. She quickly abandoned teaching simultaneously & used homeroom to offer remote students an online meeting & assigned them a reduced workload to complete asynchronously.
T25	TX	6th-8th	Suburban	Blended	Blended	Partial	Yes	In each class, some students in-person & others remote. Half of each class is synchronous with remote students.
T05	TX	9th-12th	Rural	Blended then in-person	Blended then in-person	Yes	Yes	First 12 weeks had 55 virtual students & 65 in-person students spread across 7 classes. In mid-October, the district ended blended remote hybrid and all students had to return to in-person.
T16	FL	6th-8th	Rural	Blended then Parallel	Blended then in-person	Yes	Yes	Assigned classes with about a third of students synchronously remote with the in-person students thru December. In January the district ended blended citing high student failure rates and moved remote students to an independent study program.
T17	FL	9th-12th	Urban	Blended	Blended	Yes	Yes	Classes a mix of in-person and remote synchronously.
T64	TX	9th-12th	Rural	Blended then parallel	Blended then in-person	Yes	Yes	First nine weeks of school, all classes were a mix of remote and in-person students. School then ended the blended model because of high student failure rates. Online students were then shifted to a private service and the teacher then only taught in-person.
T65	AZ	9th-12th	Suburban	Alternating & Blended	Alternating & Blended	Yes	Yes	Assigned an A/B/C schedule with C students full time remote and spread between groups A and B. Groups A and B alternated between two days in-person and two days synchronously remote.
T59	MA	9th-12th	Rural	Alternating & Blended	Blended	Yes	Yes	Teacher assigned an A/B/C hybrid schedule with A in person M/W and B T/Th and C fulltime remote. Teacher is remote (medical exemption) & teaches synchronously online with all student regardless of their location.
T74	NY	9th-12th	Urban	Alternating & Blended	Alternating & Blended	Yes	Yes	Assigned an A/B/C schedule with A & B alternating in-person two days & synchronously remote two days a week. The C students are full time remote from home & synchronous four days a week. One day a week all three groups are asynchronously remote.

Key: T# = Teacher number

Table A2: Teaching situation of focal teachers with single mode assignments (N=9)

T#	State	Grades	Community	School Model	Teacher Mode	Remote Synchronous	Dual Mode Assignment	Details on teacher working situation
T15	FL	9th-12th	Rural	Parallel	In-person	Yes	No	School's parallel hybrid has some students fulltime remote with full time remote teachers. This teacher is in-person but routinely has 20 plus students quarantined, blended into her class from home.
T26	FL	3rd-5th	Other	Parallel	In-person	Yes	No	Each grade level team has some remote classes/teachers and some in-person classes/teachers.
T34	NY	9th-12th	Urban	Parallel	Remote	Yes	No	All instruction is synchronously remote but some students are in school supervised in a study hall by a rotating schedule of teachers. (Teacher is exempt from the study hall duty because of a medical exemption). Teachers on study hall duty do not teach their classes. This is a unique variation but the school and the teacher describe it as hybrid.
T46	IA	9th-12th	Rural	Parallel	Parallel	Yes	No	Teacher assigned five in-person class periods and one online class period.
T51	TX	K-2	Urban	Parallel	Remote	Yes	No	School opened very briefly with each class a mix of in-person and remote students but principal changed it so remote students are taught synchronously online by remote teachers and in-person students are taught by in-person teachers. (Teacher was remote the whole time with a medical accommodation)
T67	IA	9th-12th	Suburban	Parallel	Parallel	Yes	No	Teacher assigned five in-person class periods and one online class period.
T75	MA	3rd-5th	Suburban	Alternating	In-person	Yes	No	Teacher assigned an A/B hybrid schedule with each group receiving two weekly in-person days a week. When students are not in person they are taught synchronously by other (specialist) teachers
T71	NY	9th-12th	Urban	Alternating	Alternating	Partial	No	When hybrid taught same classes of students - 3 days a week in person, one day synchronously remote and one day asynchronously. But less than three full weeks in-person/hybrid as most of year has been remote.
T36	MA	6th-8th	Urban	Alternating	Alternating	No	No	Teachers assigned classes that meet four days in person and one day asynchronously remote.

Key: T# = Teacher number