WHAT IS “PLATOONING”? “Platooning,” is a 100 year old term for “a method of school organization in which a teacher instructs in one subject or in one group of related subjects,” (Barnes 1962) also known as “departmentalization”, “specialization” and “distributed teaching model” and the antithesis of “self-contained classrooms.” Platoons of students and teachers organized by subjects can last all day or part of the day (Hood 2010 p.13). Initially “platooning” was for more “efficient” schools (Barnes 1921); and became adopted in grades 7-12; current platooning debate is about K-6 for core subjects.

WHY THINK ABOUT RESEARCH ON “PLATOONING”? Platooning, in the right conditions can increase student achievement, teacher satisfaction and efficiency. In some school environments platooning comprises student learning by compromising the student teacher relationship.

WHAT THE RESEARCH SAYS ABOUT PLATOONING. “The self-contained classroom organization assumes that an elementary school teacher is equally strong in all curriculum areas, “ (Chan 2004, p.70). Gerretson et al found that the “generalist approach is not working in the delivery of mathematics” (Chumley, 2007; Heathers, 1961 in Gerretson 2013 p.304, 312). To raise test scores in response to NCLB, elementary ‘platooning’ has become more popular assuming that “subject specialization leverages teacher content knowledge and effective content specific pedagogy” (Gewertz 2014; Delviscio & Muffs, 2007 in Chang et al 2008; Heitin 2012; Hess 2009; Public Impact 2012). Empirical research shows that teacher content knowledge and specialization can increase student achievement (Gerretson 2008 p. 312), in reading (Block et al 2002; Hill, H. et al 2005; Golhaber et al 2013), in math (Hill, H. et al 2005; Golhaber et al 2013) and in science (Brobst et al 2017). “Comparisons of instructional quality between self-contained and science specialist elementary teacher had mixed findings with higher-quality instruction clearly observed among the specialist in some cases (Schwarz et al, 2000 in Brobst et al 2017, p. 1319) and no difference in quality of instruction observed in others” (Levy et al, 2015 in Brobst et al 2017, p. 1319). In a platooned elementary school, students can also benefit from exposure to different teaching styles (Beckerm 1927; Fink 2019) and can become more prepared to transition to middle school. Teachers like platooning. “The first 2 months after implementation are challenging, and there’s often a great deal of resistance from teachers, but once it’s put in place and teachers get to know their students and grow accustomed to collaborating with colleagues, they don’t want to return to the traditional format” (Hood 2010 p.16). Platooning “attracts teachers with more interest in and stronger backgrounds in science and specialization increases teacher planning time which leads to science lessons that all students to engage in more science sense-making” (Beckerm 1927; Brobst 2017; Beckerm 1927). Platooning intensifies the focus of teachers' professional preparation (Beckerm et al 1927; Chang 2008) and reduces the number of subjects to prepare (Beckerm et al 1927; Chan 2004). Specialization can lead to more collaboration amongst teachers and with planning for less subjects can increase teacher retention (Chan 2004; Hood 2010).

Efficiency. Elementary school Principal Matt Bona from Walla Walla, combines platooning and looping and explains the efficiency achieved, “I don't need 90 books when only 30 kids are coming into the room, so my dollars go farther,” (Beckerm 1927; Gewertz 2008; ).

COMMON CONCERNS ABOUT “PLATOONING.” The student and teacher relationship is compromised. “Teacher-student relationships matter…. [Schools] want to jump right into academics and really dismiss or minimize the importance of relationships,” (Barshay 2018). In fact, Hill and Jones (2018) found empirical evidence that increased student-teacher familiarity improves academic achievement in elementary school. The emotional needs of students are not met (Bowser 1984 and Findley 1966 in Chan 2004). Teacher specialization in elementary school is likely to reduce student-teacher familiarity and hence not meet the emotional needs of students (Hill et al 2018). “In a departmentalization model
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where a student interacts with multiple teachers, establishing a caring and supportive climate may be challenging, especially if those teachers remain with those students only one year (McPartland, 1990; Bryk, Lee, & Smith, 1990).” “Creating a supportive caring learning environment in which students are able to relate to a teacher has been shown to increase adolescent’s motivation to learn, helping them to work harder and stay in school (Eccles & Midgeley 1989 in Chang et al 2008 p 133). Chang et al (2008) found that students in departmentalized elementary schools are less likely to feel “connected” to the school than those in self-contained classrooms. The finding is significant until around age 10/11 (Chang et al, 2008, p. 132). First field study in over 100 years of “platooning” finds that “teacher specialization, if anything, may increase the quality of human capital available to teach students through sorting but may lead to inefficient pedagogical choices and decrease student achievement, decrease student attendance and increase student behavioral problems” (Fryer 2018 p. 655). “Unless combined with looping, where teachers stay with the same students two or more years in a row, a departmentalization model decreases the amount of contact a student has with an individual teacher, which in turn may decrease the likelihood that a student feels an attachment to a single teacher and vice versa (McPartland & Braddock, 1993). In essence with the transitions departmentalization lacks a holistic view, there is too much attention on the subject and not the child (Fink 2019).

PRACTICE/TOOLS and RESOURCES. Platooning is not a silver bullet. Platooning can solve or exacerbate the schools problems depending on the issue it is trying to resolve. Educator friendly approaches to research-based platooning practices:

❖ Straightforward, simplified article to describe the PROS and CONS of “platooning”
  https://www.scholastic.com/teachers/articles/2017/platooning/

❖ Accessible article that lays out a STEP-BY-STEP process for implementing platooning based on the model of an elementary school that implemented platooning.

❖ Five tips written for teachers by a teacher on how to effectively “departmentalize” at the elementary school
  level: https://performingineducation.com/2015/07/5-classroom-organization-tips-for-departmentalizing-in-elementary.html

❖ Rebecca DuFour explains how to conduct PLC’s in an elementary teaching structure which is departmentalized
  http://www.allthingsplc.info/blog/view/223/is-departmentalization-an-approved-practice-in-the-plc-at-work-process

ANNOTATED FULL SOURCE CITATIONS

  ❖ Turn of the century description of the first platoon models in the U.S. including the infamous “Detroit Plan.”

What the research says about PLATOONING

❖ A recent empirical quantitative examination of the contribution of classroom format on teaching effectiveness and achievement in English language arts (ELA) and mathematics.


❖ Thorough, yet succinct narrative summary of the recent research on “looping” and “platooning.” Written for the layperson, yet research based enough for the professional.


❖ Written 92 years ago, the merits and demerits of departmentalization are still valid for today.


❖ One page article written by a principal, cites seminal research, summarizes key reasons for departmentalizing in an elementary setting and lays out key steps to take before full implementation.


❖ The seminal recent empirical research in platooning is presented in this journal article. Fryer (2018) notes that this is the only fieldwork on departmentalization of elementary school students.


❖ Summarizes many types of specialized models that have been implemented. Surveys of school teachers and leaders using these models provides context.
What the research says about PLATOONING

❖ A news oriented article that summarizes platooning and how it is applied in schools in Walla Walla, Washington. It summarizes general benefits and criticisms of platooning. It cites ASCD research done of the “whole-child” model for education which does not support platooning.

❖ Summary of research conducted using student-teacher linked data in stated exam to find out the correlation of teacher productivity across math and reading. Empirically, found that assigning teachers to teach particular subjects based on their measured productivity could yield modest student achievement benefits.

❖ Article about the first models of platoon elementary schools in the nation, including the first Minnesota school (in St. Paul) to be organized on the platoon plan.

❖ Summarizes the traditionally cited pros and cons of platooning and has insightful quotes and examples from school leaders who implemented platooning in elementary grades in Florida, and Denver.

❖ This study found that teachers’ mathematical knowledge was significantly related to student achievement gains in both first and third grades - controlled for key students and teacher improving teacher's mathematical knowledge improves students’ mathematics achievement.

❖ Published empirical study which demonstrates that teacher-student familiarity improves student achievement; a study that is a seminal work in supporting the educational practice of “looping”. Cautions educators that “departmentalization” (aka “platooning”) may have antithetical affects.

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