



Content	Do This
Introduction: Everything context /student (S) specific , should be response to assessment of learning, means plan for AND adapt in the moment no scaffold (SF) is permanent, shouldn't be labour intensive.	• Cannot 'pick up and go' as context (S, class, subject) determines strategy • You might make mistakes – that's ok
1 Differentiation, adaptive teaching and scaffolding: Differentiation of: learning outcomes/stretch or extension questions (q) → expect more from some S than others – NOT ok. What To Do (WtD): 1. Teach to the Top (adopt mindset, watch your language, no target grades, have challenging curriculum) 2. Adaptive Teaching (anticipate barriers, use AfL, adapt in the moment, SF can be modelling/vocab/ metacognitive strategies/guided practice/checklists) 3. Why is SF hard? (highly complex, implies more work, novice teacher (T) →make it easier/expert T →long-term agency) 4. Check for Understanding first (skillful AND frequent CfU needed)	• Plan for the top, support all to get there via assessment for learning (AfL) • Any low expectations will limit Ss • Stop saying 'low/high <i>ability</i>' • Our job to 'disrupt the bell curve' • SF is more than just a worksheet • Some Ss will need additional targeted support that SF can't provide
2 Scaffolding of retrieval practice (RP), verbal prompts: Key principles of learning: Model of memory (Willingham) = attention/working memory (WM)/long-term memory (LTM)/forgetting. Cognitive load theory (CLT) = limits to WM, develop schema by generative processes e.g. link to prior knowledge (PK), make meaning. WtD: Retrieval: (Testing effect powerful) 1. Task order: go easy → hard. 2. Hints: after <i>appropriate</i> wait time 3. Model/guide: live model, partially completed concept map/diagram 4. Verbal prompts: trigger cognition (academic knowledge (K))/metacognition (how to think about thinking).	• CLT → clear, succinct explanations/ chunking of info/uncluttered visuals • Offload WM to written materials helps • Memories are recreated when you try to recall, which strengthens them • Testing really helps learning • Wait times are longer than you think • RP can be SF like anything else
3 Scaffolding through modeling: = learning through observation/applicable in all subjects. Models can be: physical (e.g. paragraph), conceptual (e.g. particle model in science), us thinking out loud (e.g. live solving a problem). WtD: 1. Worked examples: with FAME: Fading/Alternating (you do/they do)/add Mistakes/ you Explain, comparative modelling (2 e.g.s which is best) 2. Live modelling: making our invisible thought processes visible = VERY helpful, you can ask qs = interactive 3. Student models: Use student work instead, <i>they</i> talk about <i>their</i> thinking 4. I, We, You prepared, live modeling, indep. practice/needs careful planning.	• Show them what 'good' looks like • Make your thinking visible really helps • Get a visualizer/document camera • Care they don't copy live modelling • Watch out for S work you can show • Move them from novice → expert • Elicit what they know/don't over-model or be overly prescriptive
4 Scaffolding of explanations (expl): WtD: 1. Chunking: care not to overload WM, chunk the curriculum/chunk the lesson (expl/model/practice several times) 2. Analogies (Boxer): help connect abstract (target) to familiar/their PK (source), target may not map exactly to source. 3. Pre-teaching of vocab: Unlock Tier 2/3 words → Select/Explain/Explore/Consolidate (Quigley), Frayer model 4. Visual scaffolds: dual coding (picture + text (written or spoken), graphic organizers (GO) (e.g. fishbone/ Venn/flow charts), Ss explain use. 5. Storytelling: Stories 'psychologically privileged', easier to comprehend/remember, interesting, but can distract from learning.	• All new info needs chunking (explanations/videos/text... all) • Check the analogy will map well • Do no harm with the analogy! • More effective to use dual coding • Select graphic organizer to achieve a particular purpose • Choose stories with care re. attention
5 Scaffolding and reading (rdg): We are ALL Ts of literacy = passport for S success. Secondary/HS Ts know what (word banks) but not why/how to use. Goal: Ss strategic readers/writers/speakers, needs modelling, tell Ss 'why' → prospect of success → motivation. [Phonics = specialized, interventions = local →not in book.] WtD: 1. Get data: rdg ages/additional testing →individual barriers. 2. T-led modelled rdg: T reads, students follow/annotate →T shows enjoyment/ models fluency/prosody, show purposeful annotation, goal = fluent →strategic. 3. Reciprocal rdg: choose text, Ss: predict what will happen, apply PK, identify new vocab, clarify meaning, summarize, ask qs. 4. Whole class rdg: tricky, better read to partner, ask qs. 5. Repeated rdg: T models re-reading →fluency. 6. Paired rdg: low-stakes, peer feed-back, promotes active listening. 7. Indep. silent rdg: apply chunking/reciprocal rdg/help Ss choose texts, increase time, encourage reading at home. 8. Exam qs: Read/underline/ summarize/solve (RUSS), need deliberate practice with SF, applies to all subjects.	• Many Ss 11 – 18 have a reading age many years below chronological age • Literacy is itself a SF for curriculum & domain K • Ss can learn to love reading by watching others love reading • Teach Ss reciprocal reading toolkit so they can apply it themselves • Plan paired reading carefully – see book for strategies, ditto indep rdg • Talk to parents/hold workshops on rdg to increase indep rdg at home • Knowing RUSS reduces stress
6a Scaffolding and writing: Barrier: writing is hard work . Needs executive function (plan/sustain effort) + composition (K of topic/organization/vocab) + transcription (write/spell). WtD: activate PK (RP/brain dump/qs), get to crux of q (RUSS above), plan (link PK to crux, structure it), draft (model, use metacognition, teach word/ sentence/ paragraph level skills, kernel sentences, because/but/so, single paragraph outline, DARE develop/add details/reject arguments/end with strong conclusion, writing frames), revise/edit (model review/revision, use peer review + T feedback)	• Writing is tiring due to cognitive effort • Teach structures and systems S can apply in all writing • Card sorts/GOs etc. help with planning/drafting – see p. 129-133 • Elevate writing strategies p. 137-141 • Plan removal of writing SF over time

6b Scaffolding and writing: primary (elementary) case studies: 1. Scaffolding Before the Writing Task (KS1) 2. Using Writing Packs as Scaffolds (Year 1). 3. Scaffolding Writing (KS2). 4. Reaching the End Point: Mastering Independent & Fluent Writing (KS2).	• See p. 147 – 169 • KS1 - age 5-7, KS2 - age 7-11 • Year 1 – age 5 - 6
7a Scaffolding and oracy: Oracy = process (focus of book) AND outcome, not a luxury /fundamental to all Ss development. WtD: Types of talk: rote/recitation/instruction/exploratory (discussion)/dialogue. Conditions: culture of respectful listening + active participation. Contracts: include e.g.no interrupting/take turns/ body language/focus on topic. Rules: SF with visual/verbal (model rules, use cues/reminders/prompts)/ written. For each type: teach expectations = metacognitive K of process, show examples (use kernel sentences Who/What/Why/How). Content: SF ALL with aide-memoires/mini-whiteboard quizzes/pair-share talk. SF for exploratory/dialogue with: RP, peer work (learning from each other, co-constructing ideas, transforming under-standing). Vocab: Frayer model, saying word out loud (choral response), word banks (model how to use), points for Tier 2/3 words → summary 'bullseye', use 'say it again, say it better' 'prompt in discussion. Process: RP on process (types, content, vocab, sentence stems), respectful/active listening (listening ladder, T models it, pair up deliberate practice, alter group sizes), sharing ideas/turn taking (sentence starters, question stems, Voice 21 Talk Tactics, habits of discussion (Lemov), talk tokens), voice/physical stance/body language (T modelling with narrative, examples (famous speakers) looking for tone, body language, facial expression, gesture etc.).	• Be clear about types of oracy • Create conditions: clear, concise ground rules and/or contracts • Model rules yourself, praise them for meeting expectations • Take the time to create conditions • Make purpose of talk clear • Ensure they have the content + vocab they need to be confident talking • Peer work = inter-thinking = useful • Watch for shoe-horning in 'bullseye' • CfU applies to process here too, as does deliberate practice • Check out TLAC (Lemov) • Oracy = life-long learning process, needs reflection/fine tuning.
7b Scaffolding and oracy: case studies: 1. Oracy and Student Agency – 'Everything but the Answer. 2. Oracy – Dialect and Standard English.	• See p. 199-211
8 Scaffolding in practical subjects: Case studies: WtD: Dance: adjust content (slow music), model (what good looks like, use videos), link movement to words (using imagery, linguistic cues), over time reduce modelling/prompts, chunking to build fluency, skills training (strength/ flexibility). Music: learn an instrument = cognitive overload, reading music = rhythm AND pitch, use annotation. SF see CT+ using clapping/ mnemonics, RP of notation/hand positions, establish routines. Design technology: see CT + frequent demos, supportive videos for using tools. Physical Education: both declarative K (rules/moves, SF CT +talking partners/sentence starters/use of TA), procedural (skills, SF CT + increase space/ability grouping/modify task). Art: needs bravery, SF with CT + demos /peer assessment/learning logs. All need thoughtful curriculum planning. Using older student as mentors good, needs planning/teaching.	• Chunk everywhere: you don't learn to run marathons by running marathons • Reduce SF AND increase complexity • Common themes (CT): live modelling, I/we/you, slowing down, using RP to activate PK, building fluency with skills via deliberate practice • Use of videos in all practical subjects useful • PE challenge = vastly different PK and experience • All face challenge of 'I can't...' • Assertive mentoring: older Ss mentor younger Ss
9 Scaffolding age 5-7 and age 17-18: Case studies: WtD 5-7: Learning to count: CT + careful observation, continuum: concrete (physical objects) → abstract (numbers). Early writing: CT + practice physically using pen, visual prompts, talk, 'paint-by-numbers' = no blank page. Religion/world views: CT + suitcases of religious tools/stories/written prompts. WtD 17-18: Psychology: break down stats step by step. Geography: teach essay planning, 'knowing the box' – what's in the syllabus, 'washing-line' for binary debates . English: reverse essay planning (template + exemplar essays demystify success criteria). Env. Science: key syllabus checklists, withholding intros/conclusions- discuss.	• Common themes (CT): live T modelling, vocab, I/we/you, slowing down, using RP to activate PK, building fluency with skills via deliberate practice • Sentence starters/frames work everywhere – no one likes a blank page... a skill to develop! • Older Ss → Socratic method to develop higher order thinking + can interact with exam success criteria to reverse plan
10 Scaffolding of homework (HW): Issues: weak evidence it's beneficial, Ss may not have devices/resources – needs SF. W NOT tD: 1. Open-ended projects: time management, some Ss have lots of help, AI, grading workload. 2. Choice/differentiation: too many pitfalls (see extension qs). 3. HW for HW's sake: obviously. WtD: 1. Clear purpose (embed/practice/extend/apply) + feedback. 2. Linked to content: that they have already studied. 3. Routinised: familiar structure, timing, set/due dates.	• All homework needs careful planning, including thinking about barriers students may encounter • Level the playing field for all Ss re. HW • Always as 'why am I setting this', and know why. • Consider the cognitive load for Ss dealing with HW in all their subjects – routines really help
11 Potential pitfalls of scaffolding strategies: Avoid 'lethal mutations' e.g. restrictive practices/policies →consistency ≠ one-size-fits-all. WtD: 1. Think SF over sequence of lessons. 2. Tailor SF to subject needs. 3. Plan content THEN SF + when/how to scale back/remove (not too soon/long), don't drift into differentiation, watch your language, plan for use of TAs (least amount of help first/wait time, avoid S being dependent).	• Anything mandated has a tendency to mutate • Don't let SF drive planning – content first • Being responsive is key, but not easy – requires skill, huge mental bandwidth, humility when it goes wrong you have to adjust.
12 Professional development and scaffolding strategies: WtD: 1. Create low-stakes culture of continuous improvement: nudges not judgements. 2. One strategy at a time: teacher learning needs SF too, give time to rehearse/try it out. 3. Let the content lead: start with the end in mind/what do they need to learn. 4. Think carefully about quality assurance: look to student achievements, not separate evidence of SF. 5. Devote time to modelling and rehearsal so classroom is not first place they've tried it.	• Teachers can be (cognitively) overloaded too! • (C)PD time for SF should be sequential/sustained over an extended period • Ts need separate time to plan/try out strategies • Classrooms are demanding - easy to revert to habits – need strategies to avoid that!