‘Scaffolding’ Methods and the Long Shadow of Ramist Formalism: A Call for Correction in Teacher Education

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Abstract: Modern Anglophone pedagogy is characterised by some distinctive approaches to teaching and learning that set it apart from earlier instructional traditions. Among these are certain forms of scaffolding that emphasise students’ construction of knowledge. Such methods are consistent with a trend toward visible activity and display in pedagogical practice, in place of dialogue and inner contemplation. In ITE courses, scaffolding strategies are promoted to beginning teachers as novel and effective products of modern cognitive psychology and constructivist theories of learning. Here I offer a historical correction to that view, demonstrating that today’s popular scaffolding strategies have a much longer history, and that current practices echo aspects of Ramist formalism, which emerged in the context of a sixteenth-century assault on European scholasticism. Our modern tools, I argue, reflect both the strengths and the pitfalls of that inheritance. It is hoped that this review of the topic might lead to more accurate treatment of the history and theory of scaffolding in ITE courses, and might thereby encourage a more nuanced application of scaffolding strategies by beginning teachers.

Keywords: curriculum history, scaffolding, formalism, pedagogy, Ramus

This paper situates itself in the space between the history of education on the one hand and pedagogical theory on the other, two fields that rarely intersect in the preparation of teachers, or in curriculum design and practice. It casts a historical eye upon one distinctive element of modern pedagogical practice: namely, the seemingly endless proliferation of popular “scaffolding” tools (concept maps, graphic outlines, PMIs, Venn diagrams, value lines, and the like) employed by teachers as aids to student learning. In exploring this topic, I advance a number of propositions: first, that ‘scaffolding,’ whether as a concept or method, did not originate in the work of Vygotsky or other twentieth-century cognitive psychologists, contrary to the prevailing narratives; second, that some popular scaffolding strategies exhibit a simplistic formalism that echoes early-modern Ramist methodology, with similar causes and effects; third, that many features of contemporary pedagogy thought to be distinctively modern can in fact be found throughout history; and fourth, following Patterson (1997), that it is therefore unhelpful to think of education in terms of a ‘gradual acquisition of better and better methods’ (p.86). These points, and the discussion they frame, in turn support a broader thesis: that modern education is not necessarily more nuanced or enlightened than that of the past, and that Initial Teacher Education both ignores history and expends a great deal of energy needlessly reinventing it.

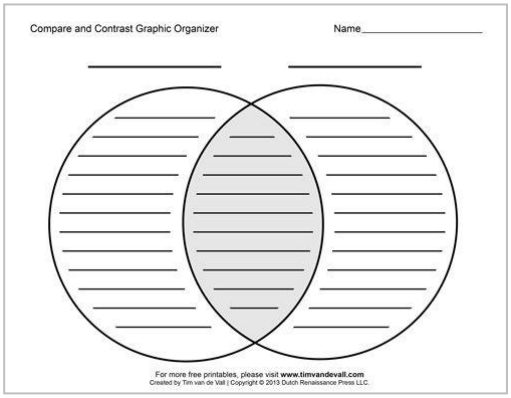
To develop the argument, I will first review some features of modern scaffolding, then discuss the sixteenth-century origins of current practices, before elaborating the limitations and dangers of those practices we have inherited from the early-modern era.

A Review of 'Scaffolding'

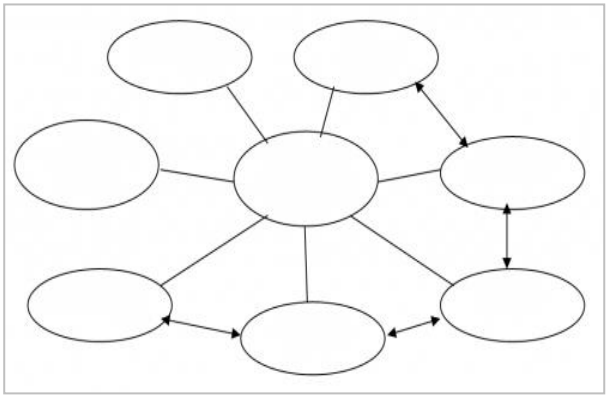
'Scaffolding' has become a core concept in modern school pedagogy. In popular usage, the term describes almost any form of guidance offered to the pupil that appears to encourage learner-construction of knowledge rather than a direct transmission of information or skills. Such usage casts a very wide net. This discussion is concerned with just one manifestation of the concept: namely, the proliferation of portable, generic strategies that take the form of activity sheets, procedural routines, charts and diagrams. Recent decades have seen a boom in the use of such generic tools, which circulate widely through published professional development materials and online repositories. Familiar examples include PMI charts, Venn diagram templates, SWOT tables, mind maps, brainstorms, value lines, think-pair-share routines, KWL planners, graphic outlines, retrieval charts, and the like. They also include text study and compositional tools such as 'hamburger' essay planners, TEEL paragraph outlines, SWAT film studies, and story graphs. A selection of examples is included in **Figures 1-13** [see pages X-X], though the range and variety is far greater than can be illustrated here. Their availability has increased dramatically in the past thirty years, pushed along first by the internet and then by the rise of user-generated content associated with the so-called "Web 2.0" (O'Reilly & Battelle, 2004) revolution. An internet search for 'lesson strategies' or 'teaching strategies' now returns thousands of images for worksheet designs, hosted by private, commercial and government sources.

What these diverse worksheets, routines, and activities have in common is their claim to aid comprehension, concept formation and analytical thinking *independent of the subject content*. Instead of matching unique knowledge-structures to specific subjects, they employ physical and spatial arrangements that are homologues of desired mental constructs and processes.

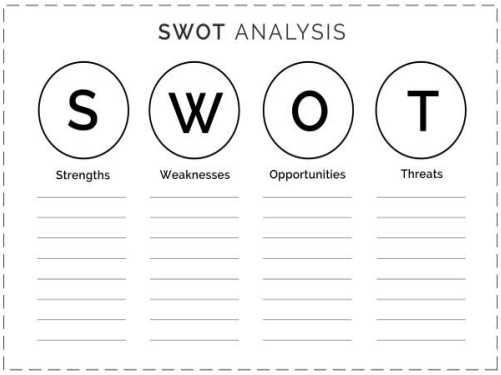
1. Venn diagram



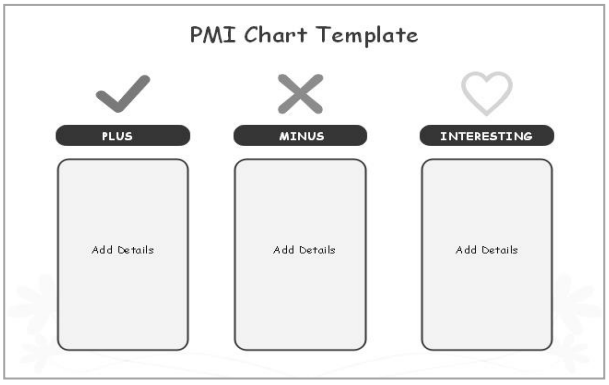
2. Brainstorm/spidergram/'mind map'



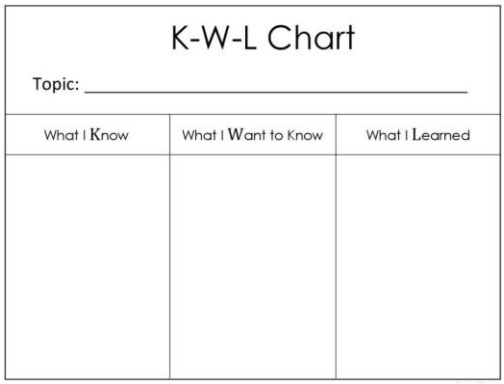
3. SWOT chart



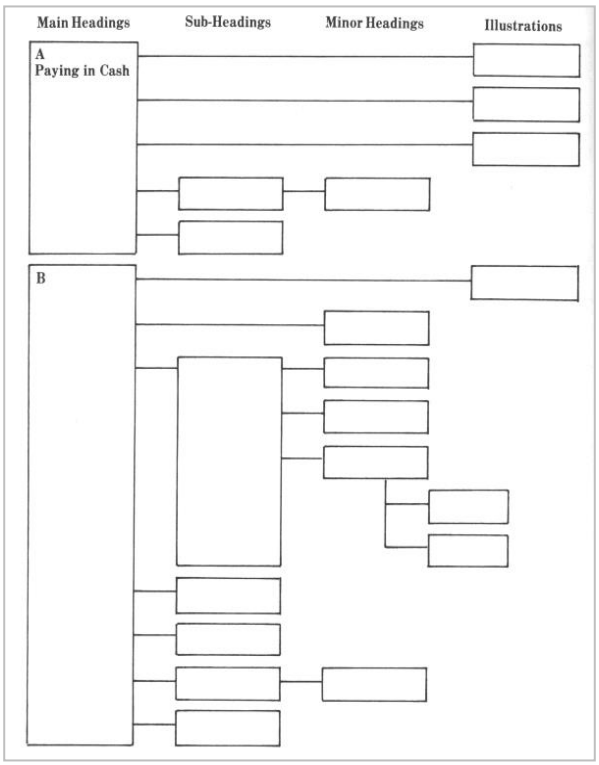
4. PMI chart



5. KWL chart



6. Graphic outline

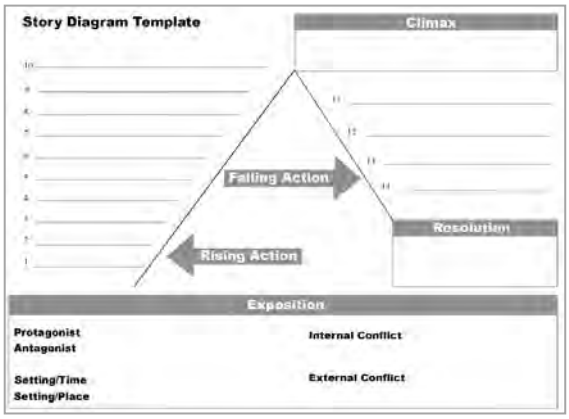


7. Retrieval chart

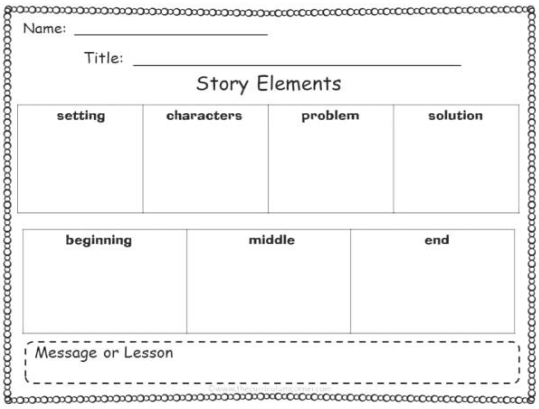
IDENTIFICATION OF COMMON MINERALS

	QUARTZ	FELDSPAR	MICA	HORNBLENDS	CALCITE	IRON OXIDE
Shape						
Hardness						
Colour						
Cleavage						
Appearance						

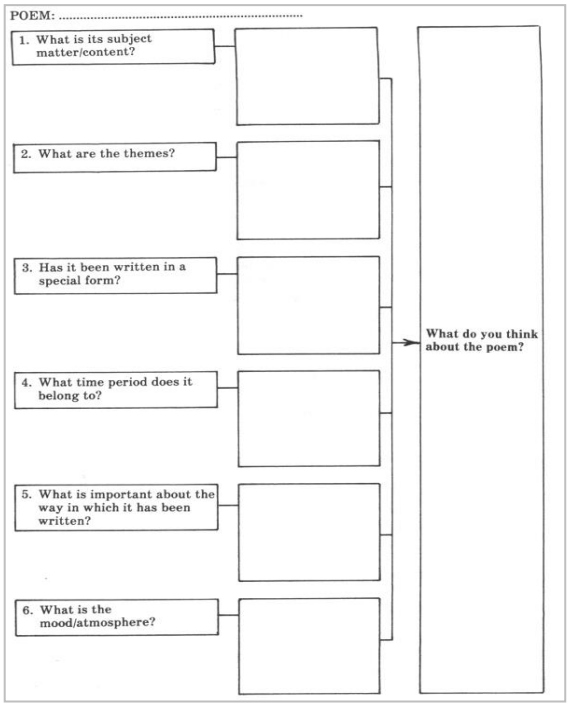
8. Story grapher



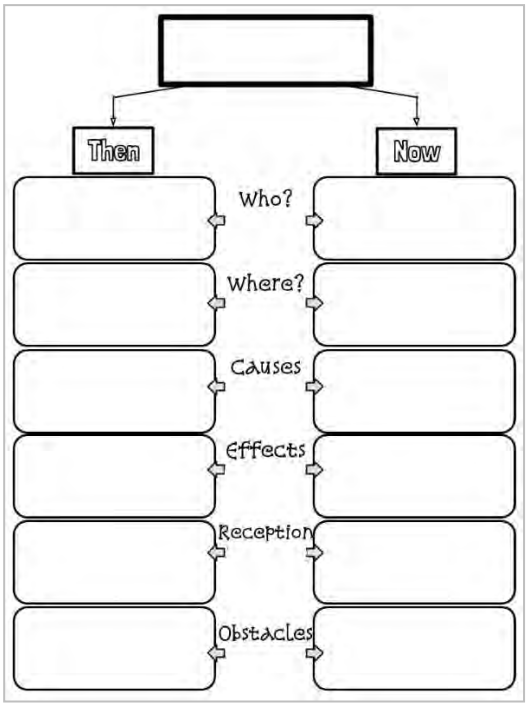
9. Story planner



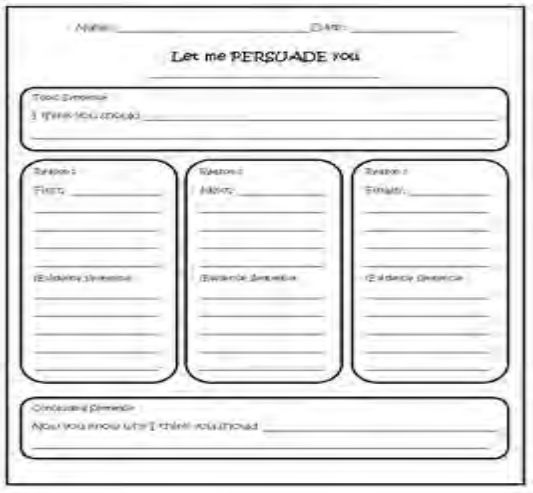
10. Text study flowchart.



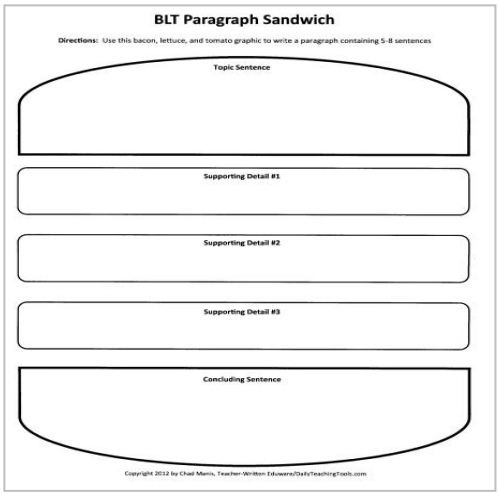
11. Comparison essay planner



12. Persuasive essay planner



13. Paragraph planner



Figures 1-13: Examples of contemporary scaffolding tools

For example, in a 'value line' activity, differences of opinion among learners are manifested physically by inviting students to stand in a line that represents the continuum of viewpoints. In 'story graphs' the subjective experience of suspense in a narrative is rendered as an objective graph of rising and falling tension. In Venn diagrams and PMI charts, points of comparison, contrast and intersection between concepts or situations are rendered in the form of overlapping circles, and lists. The assumption common to all of these strategies is that physical and visual materials can model desired mental operations such as comparison, differentiation, gradation, classification, subordination, definition, and evaluation--and can facilitate their eventual internalisation by learners, through the physical manipulation of people, objects and words on the page.

The use of generic scaffolding tools has been endorsed and promoted by education authorities throughout the Anglosphere, most obviously through the promotion of cross-curriculum literacy initiatives. Examples include the American *Next Chapter* program (National School Boards Association, 2006), Canada's *Think Literacy* initiative (Ministry of Education, 2011), New Zealand's *Secondary Schools Literacy Initiative* (Ministry of Education, 2007), and the United Kingdom's *Improving Literacy* program (Ofsted, 2013). All have followed the same lines of research and offered to classroom teachers much the same set of generic tools. This particular trend dates to the 1970s and draws upon work by Bruner (1966), Britton (1970), and others working in the fields of educational psychology and language learning. Work on schema theory (Anderson 1978; Anderson, Spiro & Anderson, 1978), advance organisers (Ausubel, 1968), and reading comprehension (Herber, 1970), contributed to the rise of instructional tools that supported student-centred and 'constructivist,' pedagogies. Hallmarks of the approach are an emphasis on practical activity as the precursor to understanding and on the use of reproduceable task sheets and designs. These developments influenced the 'literacy-across-the-curriculum' and 'content-area-literacy' movements of the 1980s and 1990s, through work by Rumelhart (1980), Armbruster and Brown (1984), Morris and Stewart-Dore (1984), Alvermann and Phelps (1988), and Vacca and Vacca (1989), whose various writings popularised the use of diagrammatic supports to aid comprehension.

These varied contributions notwithstanding, the most significant figure named in the rise of scaffolding strategies is Vygotsky. His psychological writings, including *Thought and language* (Vygotsky, 1934/1962) and *Mind in society* (Cole, John-Steiner, Scribner & Souberman, 1975), first appeared in English translation during the 1960s and 70s, and have continued to be recovered, translated and adapted in multiple collections since. It seems likely that the tendency to describe new classroom strategies as 'tools' reflects (incorrectly) Vygotsky's use of that term in 'Tool and symbol in child development' (Vygotsky & Luria, 1930). Where Vygotsky and Luria used the word to describe psychological constructs, however, modern pedagogical usage gravitated toward physical task sheets and activities. Nevertheless, the connection between scaffolding and Vygotskian theory is now so taken-for granted that Vygotsky is routinely cited as its originator (see, for example, Van der Stuyf, 2002; Boblett, 2012; Wilson & Devereux, 2014).

This widely accepted lineage is false in important respects. The term 'scaffolding' in fact appears to originate in research by Wood, Bruner and Ross (1976). In 'The role of tutoring in problem solving,' Wood et al. examined the effect of tutor guidance on problem solving behaviours in young children. They elegantly described six features that have shaped the modern concept of scaffolding: recruitment to the task, reduction in degrees of freedom, direction maintenance, marking of critical features, frustration control, and demonstration (p.98). They offered the metaphorical term 'scaffolding' to describe such guidance. Yet this ground-breaking paper contains no mention of Vygotsky and does not apply his concepts. Those attributions came later, as researchers drew parallels with the ideas in Vygotsky's

writings, especially as reported in *Mind in society*. Such attributions may have been motivated in part by the cachet associated with endorsing a theorist from Soviet Russia—a fascination dating back to the early twentieth-century (see Dewey, 1929; Foster, 1932). That fascination kicked off what some have termed the 'cult' (Yasnitsky, 2018) of Vygotsky.

The misattribution of 'scaffolding' does not stop there, however. Casting a historical eye on the practice of scaffolding reveals that refined applications of guided learning can be found throughout antiquity. Classical primers on rhetoric by figures such as Hermogenes (c. 170 AD) and Aphthonius (c. 350 AD), for example, show well-considered attention to questions of pedagogy. These early tutors advocated working from exemplars, breaking down tasks into steps, demonstrating methods, and jointly constructing examples, as a means of guiding pupils to mastery. They were very much aware of the need to restrict the scope of tasks for beginners, to provide both models and demonstrations, and to focus on specific skills. And they developed pedagogical taxonomies of sequenced tasks (the *Progymnasmata*) that guided students from the simple, familiar and concrete (for example, study of fable and anecdote) to more complex, distant and abstract topics (defending a thesis, framing legislation).

An instance from Hermogenes' *Peri Ideon* will illustrate some elements of the pedagogy. In this extract from a larger lesson sequence, the tutor is teaching young orators how to extend or reduce a story by means of dialogue:

> *Sometimes fables need to be expanded, sometimes to be compressed. How would this be done? We sometimes recount the fable in a bare narrative, at other times invent speeches for the given characters. Thus, to make it clear to you by an example:*
> *"The monkeys in council deliberated on the necessity of settling in houses. When they had made up their minds to this end and were about to set to work, an old monkey restrained them, saying that they would more easily be captured if they were caught within enclosures."*
> *Thus if you are concise; but if you wish to expand, proceed in this way.*
> *"The monkeys in council deliberated on the founding of a city; and one coming forward made a speech to the effect that they too must have a city. 'For see,' said he, 'how fortunate in this regard are men. Not only does each of them have a house, but all going up together to public meeting or theater delight their souls with all manner of things to see and hear.'"*
> *Go on thus, dwelling on the incidents and saying that the decree was formally passed; and devise a speech for the old monkey. (Hermogenes c. 170 AD/2007)*

Here can be seen the emergence already—in 170 AD—of teaching techniques still promoted today: statement of the goal; direct address to the pupil; the provision of an example; demonstration by the teacher; and setting a completion exercise with limited degrees of freedom. This is far from the brutal rote learning approach often imagined to characterise the dark history of education prior to modern state schooling. It would need little modification for use in a contemporary writing class.

The insights of Hermogenes and other classical pedagogues did not pass down to us directly. The training methods of Greek and Roman tutors were preserved and refined by European monastic scholars for ten centuries following the fall of Rome and throughout the mediaeval period. Nor were they forgotten or rejected when religious scholasticism came under attack from northern humanists in the early-modern era. While reformers such as Vives, Agricola and Erasmus found fault with the rigidity of the scholastics and their slavish attachment to Aristotle, they and their pedagogic confrères—Roger Ascham, Richard Mulcaster, Thomas Elyot, William Kempe—continued to endorse the fundamental principles of effective instruction established by Hermogenes and his like. Here, for example, is

William Kempe expounding such principles in his sixteenth-century monograph, *The education of children in learning*:

> *[A]ll knowledge is taught generally both by precepts of arte, and also by practice of the same precepts. They are practiced partly by observing examples of them in other mens workes, and partly by making somewhat of our owne; and that first by imitation, and at length without imitation… Wherefore first the scholer shall learn the precepts; secondly he shall learn to note the examples of the precepts in unfoulding other men's workes; thirdly, to imitate the examples in some work of his owne; fourthly, and lastly, to make somewhat alone without an example. Now all these kindes of teaching are seene in every speciall sort of the things taught, be it Grammar, Logike, Rhetorike, Arithmetike, Geometrie, or any other Arte. (Kempe, 1588, p.34)*

Kempe's four-step sequence illustrates our notion of 'gradual release' pedagogy (Pearson & Gallagher, 1983; Spires and Stone, 1989; Fisher and Frey, 2013), just as Hermogenes' lesson demonstrates 'scaffolding' (Wood, Bruner & Ross, 1976), centuries before those terms were coined, and long before cognitive psychology was invoked to certify such time-honoured practices. It is clear from such evidence that teachers have had access for centuries to nuanced pedagogies that recognised the value of modelling, staging, demonstration, constraint and shared responsibility. Indeed, all the stock techniques of modern pedagogy can be found in the long pre-history of popular schooling—often in highly refined forms.

That the skilled sophists and rhetors of antiquity understood the value of scaffolded guidance should be a source of some embarrassment to those who claim such methods are new and innovative. What might still seem new is the creation of tools and resources that elaborate and refine such scaffolding through the use of diagrams, task sheets, and complex classroom routines. But as we shall see, these apparently modern developments also have a more ancient lineage than commonly suspected—and our application of them is arguably no more sophisticated now than it was in the past.

Literacy, Formalism and Spatial Display

Perhaps the most energetic developments in modern scaffolding have been in the production and circulation of visual and procedural aids, such as PMI charts, brainstorms, concept maps, organisers, and other aforementioned strategies. The proliferation of such generic tools has been pushed along by 'Vygotskian' lines of research that identify language and literacy—including visual literacy—as central to content learning in schools. That work has focussed on codifying and disseminating formalist routines that could be adopted by teachers across the range of discipline specialisations; and its advocates have been successful in gaining official endorsement for the approach from education departments and ministries.

The series of professional development initiatives emerging from Western Australia's Department of Education can be taken as representative of the trend. The Department's 1984 publication for teachers, *Reading to learn in the secondary school*, was an influential early compendium of scaffolding strategies clearly influenced by the work of Herber, Rumelhart, Britton, and others. It described and endorsed ninety-five strategies by name, including brainstorming, graphic outlines, retrieval charts, and SQ3R (Education Department of WA, 1984). A later version of the materials, *Stepping out: Literacy and learning strategies* (Bradley, 1996), trimmed the number of strategies to fifty-four but codified them more rigidly. Included in the Bradley version were dictogloss, card cluster, DSR, jigsaw groups, concept map, PMI chart, six thinking hats, and think sheets, among many. In the early 2000s a further compendium, *Success for all* (Kiddey & Waring, 2001) continued the trend. Most

recently, the Department has relaunched and rebranded its literacy tools initiative under the banner *Lifting literacy* (Department of Education WA, 2021). These varied publications (and more) have drawn on the same theoretical rationales and promoted essentially the same formalist methods for almost forty years.

The strategies collected and demonstrated in these publications are *formalist* in the sense that they assert the value of processes, general skills and abstracted structures over disciplinary knowledge and facts. Formalist assumptions are embedded in a number of education philosophies, including the 'learning how to learn' and 'critical thinking' movements, and in the oft-cited 'unpredictable futures' thesis, which asserts that facts cannot serve as the basis for a curriculum because they quickly become outdated in a fast-changing world. Like scaffolding itself, these notions have much longer histories than commonly assumed. A foundational framing of the modern versions can be found in the work of Kilpatrick (1925, 1926) and Rugg (1928); but traces of the underlying arguments go back to the ancient antagonism between idealists and empiricists.

Formalist approaches can be problematic when they are substituted for detailed knowledge of content in a specialist field. In secondary school English, for example, the complexities and nuances of writing, literature and film study are often glossed over by means of simplistic formalisms. Common instances include the 'five-paragraph essay,' 'hamburger' scaffolds, 'TEEL' paragraph structures, 'SWAT' codes in film study, 'pyramid' story planners, and the cataloguing of 'poetic devices.' So-called 'hamburger' planners use the metaphor of the hamburger bun and filling to illustrate the structure of introduction, body paragraphs, and conclusion in an essay. The 'TEEL' acronym is used to enforce a rigid paragraph structure consisting of Topic sentence, Explanation, Example, and Link. 'SWAT codes' designate the study of Symbolic, Written, Audio and Technical codes in film—a reductive and misleading mnemonic that governs the teaching of film in Western Australian schools especially. 'Pyramid' story planners impose the rigid formalism of introduction, rising action, climax and denouement in narrative writing, derived from Freytag's (1863) dubious analysis of drama. These formalist approaches are used routinely in secondary schools to structure reading and writing activities, despite their evident hollowness and generality. The result is a superficial and fragmented approach to content and skills. Exemplary critiques of such practices in the language arts can be found in Hirsch (2006), Brannon et al. (2008), Gyenes & Wilks (2014), Graff, (2015) and Moon (2016).

Of interest for our present purpose is the extent to which generic scaffolding tools have been promoted by some advocates as a panacea for the many challenges entailed in teaching and learning. Faith in the power of such tools is evident both by implication (for example, in the financial and administrative investments involved in producing and promoting resources for teachers) and by direct statement. The teacher-resource *Success for all* (Kiddey & Waring, 2001), for instance, is bold enough to flag its ambition in a title that is at once utopian and unintentionally self-parodic (echoing, as it does, the judgment of Lewis Carroll's dodo: "Everybody has won and all must have prizes!"). In their preamble to the publication, the authors offer this rationale for the formal tools collected therein:

> *[Success for All] highlights the fact that literacy underpins all school learning. It is the vehicle for understanding the specialised language, concepts and skills of each learning area. When students' literacy skills are improved, they are able to process information more effectively, and they have greater understandings about subject-specific content. Their learning outcomes are therefore more likely to improve. Increasingly teachers are required to cater for wide ranges of ability in their classrooms. When they are familiar with the purposes and benefits of different strategies, they are better equipped to cater for the diversity*

> *of needs associated with adolescent learners. Improving literacy skills = improving learning outcomes!*
> *(Kiddey & Waring, 2001. p.v)*

Here we see, quite unabashed, three astonishing formalist claims welded together: that generic tools have universal utility in schooling; that all learning ultimately falls under the literacy umbrella; and that equality of outcome can be achieved in the school system, regardless of differences in the innate capacities of pupils or the complexities of specific subject content. Collectively, these claims characterise an educational philosophy built in equal parts on the idea of the autodidact child, who requires only guidance and 'access' to knowledge, and on the fetishizing of print and visual literacy.

Without for a moment disputing the importance of literacy, or the efficacy of some scaffolding tools, we should note that such claims have already been challenged from a number of perspectives. Some objections have attacked formalism *per se* as inadequate for comprehension and for content learning (for example, Hirsch, 1996, 2006; Tricot and Sweller, 2014; Sweller 2021). Other rebuttals have queried the assumed link between Vygotskian accounts of language acquisition and subsequent theses supporting the primacy of language and social relations in learning. So-called Vygotskian revisionists have observed that Vygotsky's work has been mistranslated, misread, misapplied and over-extended in the service of popular (mostly progressive) movements within education. Critics have noted, for example, that the claimed importance of practical activity in learning, and of collaboration, has been overstated (Toomela, 2000; Gredler & Shields, 2004); that Vygotsky in fact stressed the centrality of subject-specific concepts and knowledge (Miller, 2011; Gredler, 2007, 2012); and that progress in linguistics and cognitive psychology since the 1930s has cast doubt on Vygotsky's theoretical framework if not his empirical observations (Lambert, 2000; Yasnitsky & van der Veer, 2016; Zhang, 2018).

To the extent that cross-curriculum pedagogical routines are associated with progressivism they constitute yet another fault line in the clash between conservative and progressive philosophies in education. This has resulted in some fairly predictable taking of sides. Where content-knowledge advocates have stressed the need for a pedagogy that is tied to deep knowledge of subject (for example, Shulman, 1968; Hirsch, 1996, 2006; Chall, 2000; Kirschner, Sweller & Clark, 2006; Clark, Kirschner, Sweller, 2012; Sweller, 2021), constructivists and formalists have stressed the greater value of generic tools and routines, and the concept of "learning how to learn" (Dewey, 1897, 1902; Novak & Gowin, 1984; Spady, 1994, 2010). Where some have raised fears of a take-over of content subjects by generalists and a damaging neglect of knowledge, others have warned against the alleged stifling influence of subject 'silos' and the futility of disseminating knowledge that is either irrelevant to students or past its use-by date (see the discussions in Oakeshott, 1989; Johnson et al., 2007; Young, 2008). To frame formalist strategies in these narrow terms is anachronistic, however. There is evidence that these very debates, like the strategies themselves, owe less to recent concerns about 'lifelong learning' and 'twenty-first century skills' and more to a longstanding trend away from contemplation, reasoning and exchange in the schoolroom (see Bowers, 1967; Joseph, 2002; Kennedy, 2018) and toward the triumph of activity and observation—a trend associated with certain bio-political disciplines of the body.

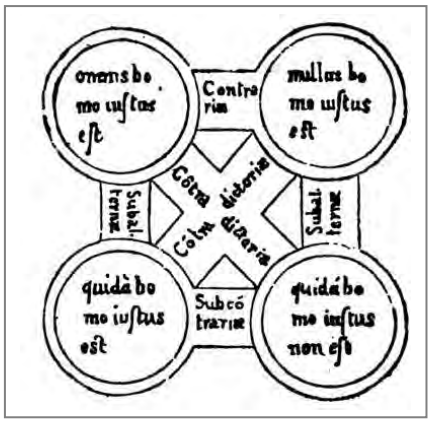
I shall come to that trend shortly; but it is first important to address another feature of literacy-driven and constructivist scaffolding tools, one that has received less attention than the issue of process versus content outlined above. That feature is the visual and schematic character of the strategies. The emphasis on diagramming, mapping, and systematising that is evident in popular scaffolding tools suggests the eclipsing of linear, discursive reasoning by acts of spatial organisation. In these activities, thinking has been 'visualised,' 'actioned,' and

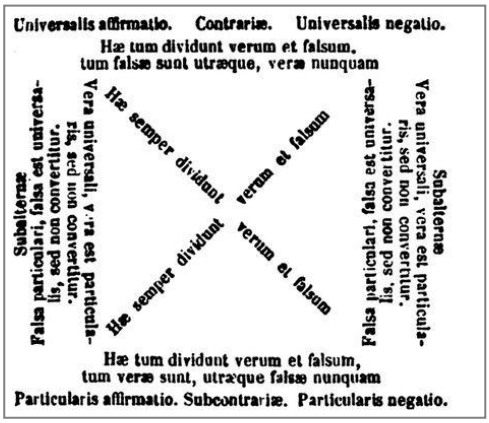
'systematised'—a phenomenon historically associated not only with the deprecation of content but also with the massification of schooling and the rise of the printed textbook.

As with the concept of scaffolding itself, it is tempting to think of diagrams and spatialised schemata as products of our modern 'visual' culture. But the roots of such practices extend far into the ancient strata of education. Diagrammatic treatments of knowledge have a history that extends at least to the work of Boethius (c.525 AD), and probably before. **Figures 14-22** (see pages X-X) provide a sampling of visual aids to instruction in logic, natural philosophy and rhetoric, covering the mediaeval period and into the early renaissance. In these varied illustrations can be seen the precursors of the modern teacher's visual planners and organisers. The branching trees of Boethius (c. 525 AD) and Pacioli (1509), in **Figure 15**, are the ancestors of structured overviews, and concept maps; Weis's 'logike circles' (1712, cited in Hamilton, 1837), **Figure 20**, are the forerunners of Venn diagrams; Aristotle's square of oppositions (c. 350 BC), **Figure 14**, is a grandparent of the logic matrix and of the SWOT chart; and the conceptual 'geographies' of Celaya (1517) and Tartaret (1581), **Figures 18** and **19**, prefigure modern 'mind maps' and 'brainstorms' (Celaya used the term 'geography of the mind').

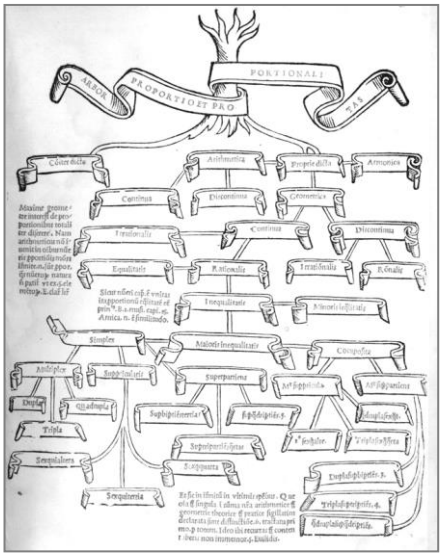
The evident similarity between the ancient visual formatting of ideas and some of our modern scaffolding tools is a reminder that there is little that is genuinely new in teaching and learning. That does not mean, however, that we are dealing with an underlying continuity, an unbroken evolutionary line linking past and present. Some features of modern scaffolding are discontinuous with the older tradition, suggesting a complex re-purposing of the tools rather than a direct inheritance. An important feature of the classical and early-modern visual tools is that they were deployed as supplements to a deep and sustained training in logic, grammar and rhetoric—the trivium that prepared students for higher, discipline-based study. Diagrammatic aids served as summaries and organisers for a body of work that was also imparted through a rigorous program of close reading, dialogue, disputation and reasoning. In contrast, most modern students are given no formal training in logic, grammar or rhetoric as traditionally understood; and in some cases, as illustrated in the example of English, the treatment of subject-specific content is also lacking. This means that modern scaffolding tools may function as substitutes for deeper study, not supplements.

14. Logic squares, derived from Aristotle (Boethius, c.524)



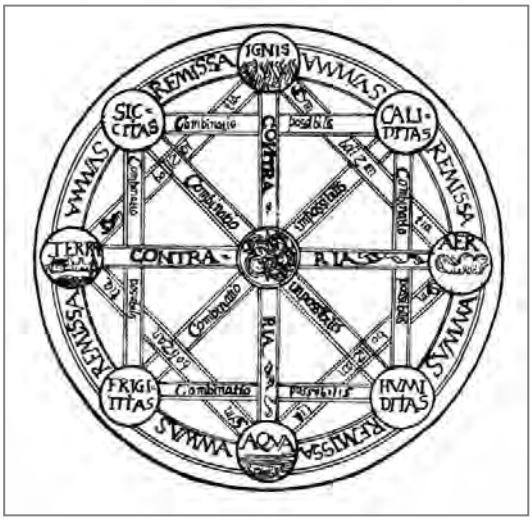


15. Tree diagrams, after Porphyry (Pacioli 1509).

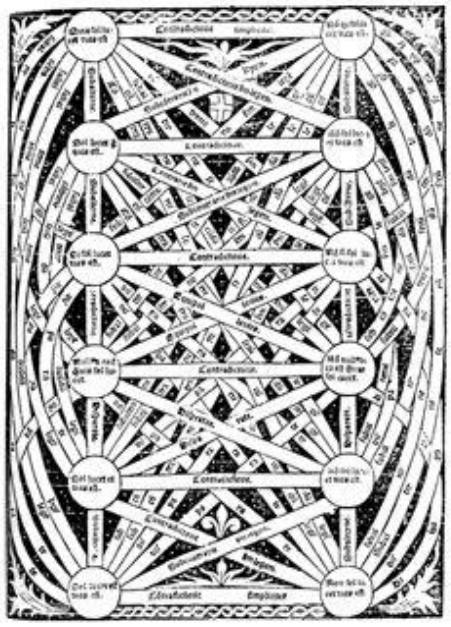


16. Picture cards for teaching logic (Murner, 1509).

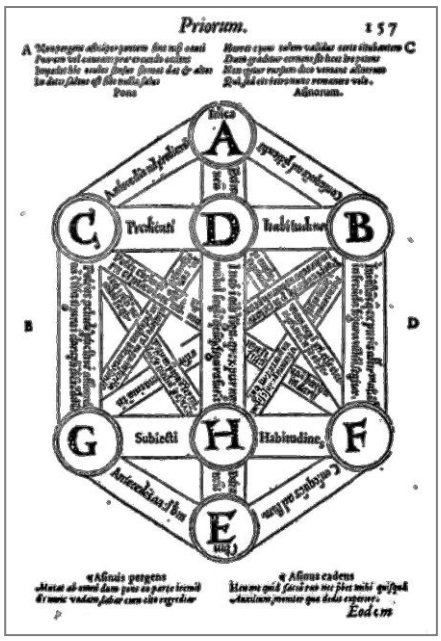
17. Aristotle's elements. (Leibnitz, 1666).



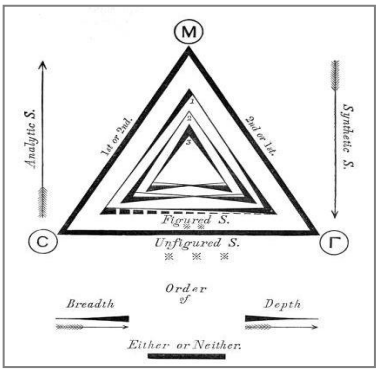
18. Geometry of the mind (Celeya, 1517).

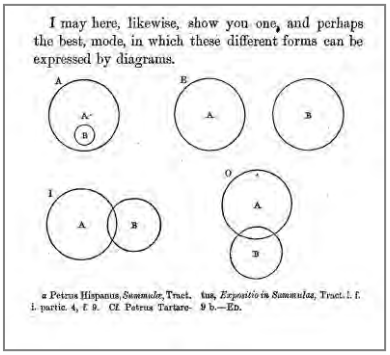


19. The logic of Aristotle (Tartaret, 1581).

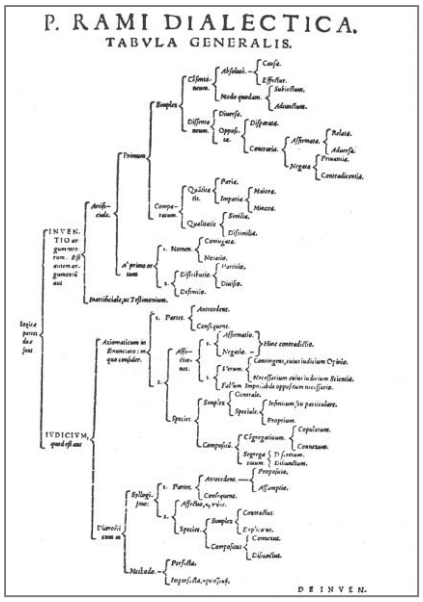


20. 'Euler' logic diagrams, attributed to C. Weiss. (Hamilton, 1837/1860).

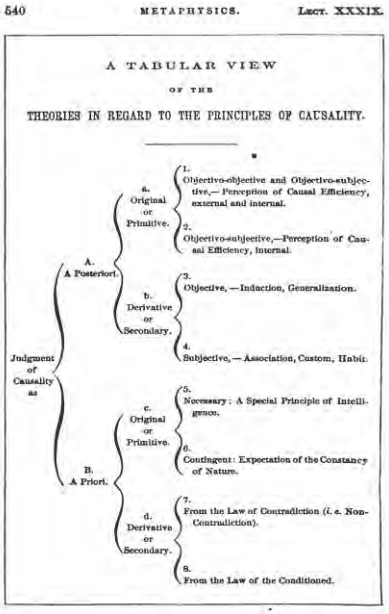




21. Structure of dialectic. (Ramus, 1574)



22. Principles of causality (Hamilton 1837/1860).



Figures 14-22. Selected classical and early-modern visual tools.

A further difference between early visual tools and their modern counterparts is that—as can be seen in the accompanying figures—the modern charts and diagrams tend to be blank. There are two reasons for this. One is that the materials circulate online as templates, which teachers are presumed to adapt to their particular needs and content. Another is that blank templates imply activity on the part of students, whose task it will be to fill in the template. In contrast, earlier visual tools were designed and completed by the teacher, who used the chart or diagram to summarise, illustrate and explain concepts through the exercise of his or her personal knowledge and authority. In the modern classroom, such 'transmission' is disapproved. A commitment to student-centred learning and individual difference favours a 'constructivist' view of knowledge, which means that tools similar in appearance and function might be deployed in quite different ways in ancient and modern contexts.

This difference in the relationship between content knowledge and scaffolding tools—a shift from supplementation of content to substitution, in which general structures and processes of learning have taken the lead over content—underscores more heavily the formalism of current strategies. Classical and mediaeval scholastic traditions recognised the need to tailor pedagogies to the specific content of a discipline. The teaching of objective fields—logic, mathematics, geometry, medicine, natural science—followed specific rules, signalling an understanding of what is now called Pedagogical Content Knowledge, centuries before Shulman's (1986) use of that phrase. In contrast, modern pedagogy prefers to err on the side of generality. We are thus left with a question: if effective methods of scaffolding, including the use of visualisation, are not new, and if these techniques have been available in some form for centuries, what events set modern teaching practice off on a different path, toward an increasingly formalist approach to instruction and learning?

One development, by now well documented, is the rise of compulsory popular schooling. The emergence of state education saw schools absorb certain tasks of government that were geared more to the efficient management of large urban populations and the shaping of individual moral character than to academic training. Drawing predominantly on the work of Foucault and Weber, historical and sociological studies by Donald, (1992), Meredyth and Tyler (1993), Hunter (1988, 1994) and Kemmis & Edwards-Groves, 2018) have shown that modern schooling has foregrounded ethical cultivation and self-inspection over a strict training in subject knowledge, as part of larger metamorphosis in the operation of state power. Associated with this change in the nature of schools, from essentially private and religious in character to governmental and secular, has been a shift in the status and personality of the classroom teacher. The modern teacher is styled as a sympathetic guide and facilitator of learning and personal development, and less an embodiment of expert knowledge. The drivers of this change are complex. Hunter (1988, 1994), Patterson (2011) and Allen (2013) identify the sympathetic teacher with a certain pastoral-bureaucratic style of management; while Furedi and others connect it to the modern West's anxieties surrounding adult authority in all its forms (Burkard, 2007; Furedi, 2009; 2017; Lukianoff & Haidt, 2018). Progressivist discourses of the child, harking back to Rousseau and to nineteenth-century Romanticism, have also played a role.

The trend in modern schooling toward experiential and personalist education (Bowers, 1967), and toward a preference for indirectness over explicit transmission in teaching, helps explain the student-centred and 'constructivist' character of modern scaffolding tools. But it does not fully explain the highly formalist turn, nor the emphasis on visualisation and spatial display in scaffolding. While demographic and technological changes have played an important role (the need to engage whole populations with varied levels of literacy, for example; and the rise of reprographics), more distant cultural and pedagogical inflection points are also part of the picture. One of these is the rise of Ramist method in early-modern

Europe, and its assault on mediaeval scholasticism—an event that etched the template for modern scaffolding techniques.

Early-Modern Influences: Ramism and Formalism

Three characteristics I have identified in popular scaffolding strategies of the present day were the focus of major disputes in the university colleges of Europe during the sixteenth century. Namely: the reductive attack on traditional knowledge, the popularising of visual schemata and spatial displays, and a formalist approach to pedagogy in all fields of knowledge. These three trends were hallmarks of an early-modern movement in teaching, driven by Peter Ramus, principal at the College of France, and a professor at the University of Paris. Promoted by Ramus, and taken up by his collaborators and supporters, Ramist 'method' was the spearhead of a humanist (and later Protestant) attack on Catholic scholasticism in France, which soon spread to the German states, and which from there entered the bloodstream of modern school pedagogy.

Ramism as a method and a pedagogical movement arose from a series of disputes over the roles of tradition and reform, subject matter and pedagogy in the college and university systems of northern European states. These issues came to a head at the historical moment when education had begun to adopt its now familiar institutional form, metamorphosing from an apprenticeship model based on the fame and expertise of the expert teacher, and a monastic model driven by adherence to received wisdom, to an administered system of timetables, courses and pedagogical routines. This was the moment in which learning was reconceived in formalist terms, in contrast to the more organic and freewheeling model of the scholar-and-disciples, or the scriptural model of exegesis. In personalised tutorship of the classical mode, the peripatetic teacher expounded on topics when and as the spirit moved him, drawing on his own personal knowledge of the subject and adopting his own techniques. The classical tutor embodied the course, quite literally. Through techniques of dialectical reasoning, arrangement of topics, and the arts of memory and oratory, the master served as instructor, life-model, and confessor to his pupils—a tradition revered by the scholastics. The Ramist challenge to this system 'decentred' the teacher in ways that prefigured similar developments in modern popular schooling.

The flash point for the change was a revisionist attack on scholasticism by Ramus himself, motivated in part by personal resentments, ambition and a questionable grasp of logic and rhetoric; but the broader context was defined by issues quite familiar to us in the modern age: a rising demand for formal education and rapid expansion of student populations; the consequent necessity of systematising delivery to large numbers that could not be accommodated under the discipleship model; and the impact of new technologies—most obviously the printed textbook. Collectively, these changes triggered a rapid and significant alteration in attitudes toward received knowledge, pedagogical methods, and the very status of teachers. Where personal apprenticeship to a scholar, or reverence for scholarly work, had been the mainstay of education, the new changes vested educational expertise in the institutional system, its resources and routines. In our modern terms, the teacher was recast, no longer the literal embodiment of knowledge but now a 'facilitator' working within an institutional framework of courses, timetables and textbook resources.

These changes hinged in part on alterations in the status of the printed word. The process by which manuscript and then print texts came to supplant memory and voice as a source of authority in the mediaeval and early-modern eras is well documented (Clanchy, 2013; Eisenstein, 2005; Ong, 1982/2012; Yates, 1966). The rise of print not only made it possible to produce primers and textbooks in great numbers, potentially replacing teachers; it

also ushered in the necessity and means of organising information in standardised ways. Alphabetical sequencing, indexing and chapter divisions in textbooks encouraged formalism in the arrangement of content. Where the expert teacher had once organised and dispensed content knowledge through idiosyncratic arrangement and delivery (a personal 'brand,' we might say), printed texts imposed a formal sameness, divorcing content and arrangement from the unique attributes of the teacher. At the same time, print conventions such as headings, charts, figures and diagrams played a greater role in representing and structuring relationships between concepts in fields of knowledge.

The contributions of key figures including Valla, Vives, Erasmus, Agricola, Ramus and Talon have been examined elsewhere in relation to these events (for example, Grafton & Jardine, 1986; Graves, 1912; Ong, 1958; Murphy & Newlands, 1983). The influence of all these men on the pedagogy of the day was considerable; but the work of Ramus was pivotal, modern challenges to his 'legend' notwithstanding (Petrina, Lee & Feng, 2016). A polarising figure—Waddington (1855) and Graves (1912) rated him a genius, while Ong (1958) thought him an arrogant buffoon—Ramus is at the very least an exemplary case of reformist zeal triumphing over moderate ability. In his capacity as principal at the College of France, Ramus replaced the reverential scholasticism of the traditional university system with a kind of pragmatic brutalism, stripping academic subjects down to their bare bones and tailoring his content to the unsubtle literalism and short attention spans of fifteen-year-old boys who were his target demographic. The classically-oriented scholastics who dominated the university had hitherto employed a pedagogy based on the traditional *lectio, memoria, quaestio* and *disputatio*—essentially a pattern of close-reading, dictation and recitation of content, followed by debates between pupils and teacher. It was a system designed to build knowledge in depth, reverence for learning, ready recall and oral competence. Ramus and his followers instead favoured pure systematisation and a simplified formalism. They upended the system, dethroning the revered canonical texts and replacing painstaking exegesis with a universalist *method*. That this was considered not merely a metaphorical heresy but also a literal one goes some way to explaining his eventual murder at the hands of Catholic assassins.

Ramus's twin obsessions were his attack on the Aristotelian tradition embedded in the university system, and the promotion of novel, diagrammatic forms of dialectical analysis, inspired in part by Agricola's place-logic. In his *Animadversiones Aristotelicae* (1543), Ramus rudely chastised Aristotle for allegedly blurring the boundaries between logic and rhetoric. He later went on to make the same accusations, in the same imperious tone, against Cicero and Quintilian (Ramus, 1549). In contrast to those ancient luminaries, Ramus confined rhetoric to matters of style and delivery only. Then in *La Dialectique* (Ramus, 1555) he championed dialectical analysis as the universal method for approaching any field of knowledge. These moves constituted his attack on the received knowledge so beloved by the scholastics. But it was Ramus's next innovation that embedded his 'method' in the minds of the 'school-men' who became his supporters. Where traditionalists had insisted upon word-for-word readings of the classical sources on a topic, Ramus jumped loosely between 'key ideas' to develop a theme or overview, anticipating the modern strategies of thematic organisation and of 'reading for the main idea' (Ramus, 1569). And where the traditionalists had developed highly specific summaries and diagrams that pertained to the work of individual scholars and philosophers, Ramus constructed generalised models, subordinating an author's unique chain of reasoning to an abstract structure of ideas that looked the same for every subject. Many of his schematic visualisations took the form of tree diagrams that are the clear precursors of our modern 'concept maps' and 'structured overviews' (see Figures 21 and 22). Ramus's charts and diagrams capitalised on the possibilities inherent in print technology, privileging spatial organisation and dialectical analysis as the royal road to mastery of any field. Having hit upon this revolutionary formula, Ramus and his followers

applied it zealously, reducing and vulgarising whole fields of knowledge in the service of a radically simplified pedagogy.

These moves by Ramus—favouring formal structures and patterns over detailed content; claiming universal utility for his methods; emphasising printed designs and arrangements at the expense of scholarly inspection, dialogue and debate—are forerunners of our modern formalist strategies. Characteristic of his narrowness and ambition was Ramus's claim that formal tools alone can suffice in teaching, and that one method is applicable to all fields of knowledge. I have noted already that modern pedagogical tools like PMIs, KWLs, SWOTs, and Venn diagrams modulate mental operations into visual forms—operations such as definition, classification, comparison, opposition, graduation and the like. And we have seen that these generic tools are claimed by some as the key to universal success (Kiddey & Waring, 2001). Of his own idiosyncratic pedagogy, Ramus made equivalent claims:

> *[O]nly one general theory—separated into the ten topics of causes, results, subjects, adjuncts, opposites, comparisons, names, divisions, definitions, and witnesses—could be adapted to make clear most easily and plainly all questions, all parts of speech, and finally all subjects . . . Let us teach that nothing apart from our ten topics should be included . . . and that nothing better can be shown for teaching and helping youth. (1549/2001, p. 690-16).*

Ramus's 'ten topics' are conceptual categories, mental constructs and relations (a schema, one might say) that he renders visible through the spatial distribution of constituents. In the same way, modern formal worksheets visualise a variety of states and conceptual relations—like and unlike, known and unknown, equal and unequal, primary and dependent. In each case, the aim is to 'solve' the complex problem of teaching and learning by application of simple, universal strategies that distil and dilute knowledge into a form that is convenient and replicable. The world is cut to fit the classroom and the child, rather than the reverse.

This brief review of the rise of Ramist formalism places the modern turn to generic pedagogical tools into a broader context. We can see that the popular classroom 'strategies' circulating online and through professional development publications are not unique developments arising from the application of modern cognitive psychology; they are, rather, adaptations of a much older tradition—a tradition that underwent both an intensification and a mutation in the early-modern renaissance in northern European states. The intensification was partially a consequence of print technology, which made the reproduction of illustrations and diagrams in textbooks easier and cheaper. The mutation was a consequence of a shift in power from the old universities, mired in scholasticism, to new colleges catering to an expanding population of students. The influences of growing massification, the rise of printed resources, and a breakdown of the scholar-disciple dyad, set the scene for a proliferation of formalist methods and a set of practices that remain part of the pedagogical toolkit today.

Ramism took hold in the university colleges of Paris not because it offered objective improvements in teaching and learning but because it was expedient. Reductive and formalist methods were found appealing by the so-called 'school-men,' who were faced with ever larger and more diverse student bodies, and whose zealous rejection of tradition emboldened them to turn their hand to teaching courses for which they often were not qualified. From Paris, the Ramist system spread through France and into the northern European states, where it influenced early experiments in popular schooling in the highly administered Prussian states of the late 1700s, through the rise of *Volksschules*. The Prussian template of state-administered education in turn influenced the establishment of popular school systems around the world, imparting to many of them a Lutheran-inspired melding of religious, moral and subject-based curricula (see Cubberly, 1920; Wardle, 1970; Donald, 1992; Hunter, 1988, 1994; Kemmis & Edwards-Groves, 2018). Elements of Ramism were reproduced in

guidebooks and training manuals for schoolmasters, helping to shape the contours of the modern split between content and method.

Ramism's Modern Return

If the current popularity of simplistic scaffolding tools is in some sense a re-staging of the Ramist response to traditional scholastic inquiry, that is because the raw materials were already to hand, and because a certain conjunction of material conditions has once again made such methods expedient. Post-war pressures in Western education systems have created conditions that echo aspects of early-modern European education. Those pressures include a rapid increase in school populations; the rise of new technologies (especially cheap and easy photocopying, followed by the advent of the internet); and a progressive critique of traditional subject-based instruction that has seen an academic orientation to knowledge eclipsed by 'knowledge-light, process-heavy' curricula and pedagogies. Influential, too, has been the concept of child-centred education, and the pressure it has placed on teachers to redefine themselves as facilitators of learning rather than masters of content. The promotion and take-up of generalised tools has arguably been overdetermined by this confluence of forces, resulting in classroom practices that converge upon formalist methods of various kinds. The modern contest for influence between specialists and generalists, between purveyors of knowledge and advocates for process, between conservative 'transmitters' and progressive 'constructivists,' is to some degree a transposition of the dispute between mediaeval scholasticism and progressive humanism of the Ramist mode.

A variety of pressures now work upon modern school systems to ensure that all students are seen to succeed, and graduate. These pressures include national and international league tables (for example the OECD's PISA testing regime); the move to knowledge-based and service economies in the West and the loss of menial jobs; global economic competition; and the growth of social justice and disability rights movements. Policies such as *No Child Left Behind* and *Every Student Succeeds* (U.S. Dept of Education, 2004, 2015), and their equivalents, have given further incentive to classroom teachers to adopt props that render complex cognitive tasks in physical and visual form, seen as more democratic and more respectful of difference. This is one way of working to equalise scores across different cognitive and socio-economic cohorts. Publications such as *Success for all* (Kiddey & Waring, 2001) are clearly part of this trend. Also influential has been the impact of managerialist practices in modern workplaces and institutions, which have emphasised observation, record keeping, and the subjection of citizens to regular measurement of productivity. In that connection, the dethroning of the teacher as a knowledge-authority has been accompanied by the attribution of greater responsibility for managing conduct. This has included transferring to the teacher responsibility for certain 'sins' of behaviour once seen as the responsibility of the student (such as failing to pay attention or refusal to engage with classwork). An intensification in the monitoring and documenting of classroom behaviour has paralleled the spread of certain disciplinary techniques of the body, organised around the detailed observation and the adjustment of physical conduct (Foucault, 1975). Techniques of self-inspection and reflection (Foucault, 1978, 1988) also have found expression in educational settings, through concepts such as metacognition: the self-aware contemplation and adjustment of one's own thought processes. Formalist task-sheets and physical routines produce documentary evidence of the kind favoured by disciplinary regimes, in a way that the highly verbal routines of classical instruction did not.

Technological change has played its part also in externalising the hidden processes of thought and learning. If Ramus and his followers, with their passion for diagrams, were

responding in part to the possibilities opened up by moveable type and the rise of printed textbooks, modern teachers have likewise responded to chance technological and social changes. While the rise of the internet and digital platforms is a significant development, it is arguable that personal computers and access to cheap photocopying had a greater impact on the creation and circulation of formalist scaffolding tools. Teaching resources up until the mid-1980s were laboriously produced in typescript, often by teams seconded to centralised curriculum offices, with inherent limitations in layout and design. Classroom take-up of such materials required the use of unreliable mimeograph machines and spirit duplicators; and worksheets were exchanged mostly between staff within school departments. Personal computers, word processing software and photocopiers expanded dramatically the ease with which resources could be designed, reproduced and circulated (first via disk, then bulletin boards, then the world wide web). In a short time, task sheets became a fixture in classrooms, replacing dictation, note-taking from the board, and copying from textbooks.

From these observations it seems fair to conclude that a resurgent Ramism has been driven by a set of contingent material pressures acting on the modern school. These include a structural requirement (fundamentally political and economic) to ensure 'success for all,' coupled with technological advances that have made print reprographics inexpensive and accessible. Added to these drivers are the overlapping trends toward constructivism, managerial observation, documentation, and self-display. Formalist scaffolding thus becomes explicable as a further step away from teaching as the transfer of knowledge and skills, and toward teaching as the orchestration of measurable conduct, a conduct whose external form stands in for an imputed transformation of the child's internal state. It is a step toward teaching and learning as pure conduct. That is not to suggest that such practices or approaches are cynical, only that they are the product of an institutional environment that has made such strategies 'logical' and expedient. The result is a pedagogy that values 'performative' or 'visible' thinking, in which formerly hidden processes are reified on the page and in the classroom space.

Dangers and Limitations of Formalist Scaffolding

What the modern task-based scaffolds have in common with earlier Ramist aids to teaching, then, is the tendency to convert the ingredients of thought into a structure or performance. In practical scaffolding tasks, the process of reasoning, once understood as a combination of inner and outer dialogue (with the self and with the tutor) is reified as a homologous object or activity. Knowledge and thought are re-conceived as possessing an independent existence, rather than as lines or chains of reasoning that proceed from premise to conclusion through time. Content becomes something that can be grasped 'at a glance'—a 'thing' rather than a process grounded in the personal exchange between teacher and disciple (Salnik, 2002, p.5).

Students sorting themselves into a value-line, completing a PMI chart, building a structured overview, or filling in a retrieval chart are not so much thinking, as once understood, but are 'doing thinking' in the form of an observable act. There is a danger that these acts, if not tied to a deeper treatment of subject content and concepts, can become mere caricatures of the intellectual processes they aim to facilitate. It is arguable that students who must stand up and arrange themselves in a 'value line' when teasing out positions in an argument are actually engaged in a process that is qualitatively different from—and not merely a rehearsal for—conceptual thinking. The same can be said of students who must draw a hamburger or write out the TEEL acronym before writing an essay; or who must plan a story by first drawing a pyramid.

Imputing understanding on the basis of such external performances not only risks accusations of behaviourism but carries with it the danger of encouraging a cargo-cult mentality in teaching, in which the mere physical emulation of objects and relationships is thought sufficient to call the desired outcome into being. The charts, tables, diagrams and physical routines that are now so popular in classrooms stand not as representations of schemata already formed through intellectual effort but rather as alleged precursors or matrices for the creation of schema. If those precursors are already over-simplified and highly generic, there is a real prospect that the resulting understandings will be mere reductions of already superficial constructs. It is foreseeable also that excessive or careless dependence upon such tools can result in the performance substituting for thought, rather than shaping it, as scaffolding activities *replace* the mental operations for which they supposedly stand.

Another evident danger of over-investment in formalist techniques is that the specific content and structure of knowledge in a discipline becomes subordinated to general processes, risking superficiality or outright misunderstanding. Ramus and his followers were rightly derided for lacking an intimate knowledge of the subjects they purported to teach. Ramus himself leaped from logic and rhetoric—fields in which he could rightly claim some expertise—to teaching mathematics and eventually medicine, so convinced was he that *method* trumped all else (Graves, 1912). Critics delighted in pointing out the errors made by the reformers, who emphasised mnemonics, systematisation, and pedagogical method at the expense of discovery and the advancement of learning within the disciplines they taught (Kelley, 1981). Similar concerns have been expressed in relation to the use of formalist tools in modern classrooms. Siebert and Draper (2008), for example, have documented mathematics teachers' resistance to generic tools promoted by content-literacy specialists, who were seen to distort or subordinate mathematical concepts. Specialists in music and physical education have expressed similar doubts as to the efficacy of very general instructional formulae. Hirsch (1996, 2006) has likewise taken educational formalism to task for failing to recognise the centrality of specific subject knowledge not only in discipline areas but also in general reading comprehension. These are warnings to which teacher educators would be wise to attend.

Conclusion: Historical Perspectives and ITE

In this paper I have argued that the popularity of activity-based scaffolding strategies is a distinctive development in Anglophone schooling that calls for explanation. The prevailing view of the phenomenon—that such strategies are a novel application of constructivist methods derived from cognitive psychology—is at best incomplete. I have shown instead that the basic principles of scaffolding have been known since antiquity, and that diagrammatic aids to learning have a similarly lengthy pedigree. What distinguishes many current strategies is their extreme formalism, their indifference to content, and their use of visual and spatial display to reify cognitive processes as objects and performances in the classroom. This I have suggested is an intensification of latent trends in mainstream pedagogy, traceable to the early-modern origins of state-based schooling. That intensification has been driven by overlapping material factors, including a structural requirement to engage and certify all students; a drift away from narrow academic traditions in schooling, toward broader governmental objectives; the prestige currently accorded to so-called learner-centred philosophies, and the assumed centrality of language in learning; and a set of technological innovations that have made the design, production and distribution of print and graphics easy and affordable for teachers. I have argued that these factors parallel earlier turning points in

education, especially the rise of Ramist method in early-modern European states, which historians equate with a damaging assault on academic integrity.

Through this specific case, I have also sought to demonstrate more broadly that a historical perspective on classroom strategies is illuminating and potentially corrective. We have seen that scaffolding is grounded in an ancient awareness that learners can benefit from purposeful guidance when performing complex tasks. While cognitive psychology has succeeded in codifying the form and quantifying the value of such guidance, it is by no means clear that modern psychologists initiated the practices now attributed to them. Indeed, it is clear that many 'scaffolding' strategies pre-date the psychological theories that appear to underwrite them. Long before the modern era, teachers had adduced the principles of effective instruction with subtlety and success. This complicates the easy assumption that pedagogy is the transformation of theory into practice. The chain of causality appears more complex, with mutations in classroom practice sometimes giving rise to instructional techniques that, on reflection, conform to the prescriptions of the new psychological sciences. On this reading of events, theory and practice can be seen as parallel and related endeavours rather than as simple cause and effect. That is not to say that scaffolding's connections to cognitive psychology and psycholinguistics are wholly spurious, but to suggest that the domains of theory and practice jointly fall under a larger historical shadow, and are related through a range of discursive synergies that includes what might be called evolved "occupational know-how" (Moon, 2023).

As a corrective, historical inquiry alerts us to potential pitfalls that might be implicit in parallel material contexts—in this case, the decline of late-mediaeval scholasticism on the one hand, and the pressures facing the modern popular school system on the other. It suggests that lessons learned in one context might apply to the other, without requiring that one assume a straight continuity or evolution from past to present. From a historical viewpoint, it can be seen that the recent and rapid proliferation of highly generic scaffolding tools should put us on guard against a repetition of the excesses of Ramist method, with its reductive formalism and its withering assault on knowledge. More generally, looking to the past alerts us to the danger of interpreting the present as either a pinnacle or a pivotal moment in human progress. Rather than view educational practices as evolving smoothly toward ever better insights and methods here in the present, it seems safer to think of them as recombinations of a quite limited array of techniques with long histories. Critical appraisal of 'new' developments should therefore be informed by an awareness of historical precedents, alongside more empirical tests of efficacy.

Unfortunately, teacher education is generally framed with an eye to the present moment only. Popular textbooks for ITE courses either neglect history entirely, or treat the past superficially as a backdrop to current progress (see, for example, Marland, 2006; Groundwater-Smith, Ewing & Le Cornu, 2017; Kauchak & Eggen, 2017; Churchill et al., 2024). Equally, reviews of ITE courses show that theorisation is privileged over historical knowledge (Louden & Rohl, 2006; Fahey & Joseph, 2023; D'Abrera, 2023). There are obvious vocational reasons for this. Teachers must be equipped to work within current school systems and to deal with current needs and pressures; they must act in the here and now. But complete ahistoricism has a troubling down-side, which is a disabling loss of perspective from which to judge pedagogical values and strategies. In the absence of historical reference points, new ideas and methods can appear as innovations, when they might in fact be variations on, or repetitions of, past practice. Viewed from the present, the dubious track record of a bad idea can easily be hidden, and optimism for its future success exaggerated. It then becomes easy to imagine that present practice is enlightened and effective, where earlier times were blinkered and inhumane. Thus, rote learning and punitive management styles are still set up as straw-men in much education discourse, as if they were recent practices

threatening always to return, rather than distant, Dickensian caricatures of poor practice. As we have seen, the 'dark' ages were not as murky and irrational as widely imagined.

Beginning teachers are especially vulnerable to the siren call of progress. Their idealism and limited experience equip them poorly for genuine critical judgment. The media, parents, and teachers themselves can at times be equally credulous, such is the community's desire for schools and students to do well (and such is the pervasive suspicion that they are doing badly). Given this reality, zealous but well-meaning advocates of a stance or method can influence classroom practice and policy by promoting their ideas as new and progressive. There is always another Ramus waiting in the wings. Unproductive cycles of change and reversal are therefore common. Recent U-turns on topics such as fixed versus negotiated curricula, school dress codes, play-based learning versus early instruction, safety versus risk in the schoolyard, and digital technology in the classroom, show that much energy is expended in swinging the education pendulum. That educational practice contains little that is genuinely new, and that old ideas are often recycled under new names, is amply evidenced by historical studies (for example, Cremin, 1961, 1989; Ravitch, 2001; Campbell & Proctor, 2014; Lawson & Silver, 2014; Rury & Tamura, 2019); but such reviews are rare and even more rarely included in preparatory courses for teachers. In the absence of a broader perspective on the causes and evolution of educational practices, the shifting orthodoxies of teaching are too easily dismissed as fads and fashions—a charge that not only lacks explanatory power but also trivialises schools and teaching. We can do better than offer beginning teachers the meagre choice of idealism or cynicism.

Initial Teacher Education courses could begin to address the problem of ahistoricism by giving students a positive acquaintance with earlier practices and traditions, and with the contexts in which those practices emerged, as a means of expanding their instructional repertoire and building an awareness of the way practices evolve. The modern tendency to (mis)represent past educational practices as naïve, ignorant or brutish should be rejected, and a more cautious view adopted of alleged innovations. Relevant historical perspectives should be included in those courses dealing with theory and pedagogy, and a more accurate, historicised treatment of concepts such as scaffolding offered. This should include instruction in a more nuanced use of diagrammatic aids, as supplements to rigorous dialogue, oral disputation and defence in the classroom, rather than chart-filling tasks. A re-appraisal of the "cult of Vygotsky," and a more nuanced treatment of the relations between theory and practice, would also be of value. Such changes imply a shift in mindset, from the assumption that education is defined by progress toward ever better and more effective methods, to a view of educational practice as the constant refashioning of a finite array of "rare" (Hunter, 1995) and valuable techniques for fostering growth and learning.

It is hoped that the small contribution to historical thinking offered here will be a step toward addressing some evident shortcomings in the preparation and professional development of teachers. In attempting explicitly to link history and pedagogy, I have sought to throw some helpful light on current practice. My aim is not to fuel the already well-stoked boiler of critique, however, by adding new revelations on which exhausted practitioners must be made to 'reflect.' Rather, I suggest that history can be a salve to our heated anxieties about the 'the stormy present'—the feeling that our current times are uniquely fraught, that education is a high stakes game, and that one wrong step in the classroom could have tragic repercussions for a child's life or the future of the nation. The view from history shows us that those who came before us navigated equally challenging landscapes, and that they have bequeathed useful lessons to us. Equipped with their example and knowledge, we might find our own journeys a bit less lonely and hazardous.

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