Name: Grant Sciberras

Submission date: 27/05/2025

Improve school student outcomes with the best available tools and resources

What (if anything) needs to be done to improve the use of edtech tools (including GenAI) in schools?

There needs to be greater policy clarity over the use of GenAI and its role in learning and assessment. GenAI has particularly powerful potential for supporting students from a tutoring standpoint, especially in low-SES schools where student-teacher ratios are difficult to combat and students have higher needs, particularly literacy, numeracy and emotional/social skills support. Developing specific GPTs or agents are one way of doing this and could be developed within government as models for students and schools to access. However, this needs to be done in a more interventionary fashion - such as formative feedback on tasks or developing extending tasks that require ongoing feedback, student attempts and dialogue between the student and tutor. Assessment policy needs to better reflect the challenges AI poses, such as greater encouragement of projects, internships and other process-based assessments that can help mitigate the problematic use of AI while supporting students from a careers standpoint (which currently much of NSW assessment fails to adequately address).

What more (if anything) needs to be done to improve awareness and access to high quality lesson planning and curriculum materials in schools?

There is a significant challenge of access to resources in schools. I have been an English and History teacher for a decade, while working more recently in teacher education at Sydney, Victoria and Western Sydney University. Many of the resources available to early career or pre-service teachers are behind paywalls or government logins. From speaking with colleagues, many of the resources behind these logins are very reductive and not engaging for our students - they lack a diverse range of pedagogical approaches, rely too heavily on passive students and teacher instruction, whilst reflecting the continued factory model of 'input knowledge-output linear outcomes'. Greater collaboration between government and teacher associations is one solution to both improve the quality of such resources, as well as widen teacher awareness and adoption of such materials. Greater investment in research for a wider range of pedagogical practices is also critical as the current landscape has narrowed much of teaching to explicit instruction, which all teachers agree is fundamental to our practice, but only one component.

Is there anything more you would like to say about edtech, GenAI or lesson planning and curriculum materials?

Lesson planning and curriculum still lack the flexibility school teachers need to properly engage our young people and help them better understand their skills and interests. Since all of curriculum pre-determines student outcomes, we fail to support teachers autonomy to co-design learning so that students also receive enough time and opportunities to explore their interests, passions and skills. Despite GenAI and the infinite knowledge of the internet, teachers spend much of their time (and their materials) giving students content that may not even be relevant to

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them in their future, which students often are quit to forget and not use after assessment tasks are completed. We need to mandate actual space for outcomes to be decided by students with teachers and parents (in policy this is largely left to students with disabilities - my Masters dissertation explored these opportunities). The benefits of this are extensive:
1. It would enable teachers to better cater learning to all students needs. This doesn't mean pre-determined outcomes and content must all be removed, but currently that is all that is allowed, which leads to a 'one size fits all' approach when we have tools like the internet and AI to better cater to all students needs in a responsive, dialogic and collaborative fashion.
2. There is evidence that such approaches re-engages our most disenfranchised and at-risk students, which could save government potentially millions in diverting young people from juvenile justice, getting them into employment or tertiary education, preventing them from needing the healthcare system regularly. Inherently this approach actually means students can see what they are good at, opening the door to pathways that are inherently productive and preventative.
3. Even in my own practice and in other cases we have seen students that are high-potential/gifted & talented (students also on the autism spectrum or who we often term 'twice exceptional), the flexibility to co-design learning through outcomes and curriculum leads to the quality of engagement, motivation and student work we always hope to see from our schools.

I have put some references below to help consider the evidence so far, but it is certainly not an exhaustive list from my own literature reviews in both Australian and international (meta-analysis) contexts.

References to consider:
Evidence of the power of motivation and engagement to be enhanced in environments of co-design and teacher-student collaboration:

Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J. & Waters, L. (2018). What Schools Need to Know About Fostering School Belonging: a Meta-analysis. Educational Psychology Review, 30(1), 1–34. https://doi.org/10.1007/s10648-016-9389-8

Bureau, J. S., Howard, J. L., Chong, J. X. Y. & Guay, F. (2022). Pathways to Student Motivation: A Meta-Analysis of Antecedents of Autonomous and Controlled Motivations. Review of Educational Research, 92(1), 46–72. https://doi.org/10.3102/00346543211042426

Howard, J. L., Bureau, J., Guay, F., Chong, J. X. Y. & Ryan, R. M. (2021). Student Motivation and Associated Outcomes: A Meta-Analysis From Self-Determination Theory. Perspectives on Psychological Science, 16(6), 1300–1323. https://doi.org/10.1177/1745691620966789

Lazowski, R. & Hulleman, C. S. (2016). Motivation Interventions in Education: A Meta-Analytic Review. Review of Educational Research, 86(2), 602–640. https://doi.org/10.3102/0034654315617832

Lei, H., Cui, Y. & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. Social Behavior and Personality, 46(3), 517–528. https://doi.org/10.2224/sbp.7054

Evidence of the current standardised environment restricting teachers ability to meet diverse student needs and potential through more co-design:

Graham, L.J., Van Bergen, P. & Sweller, N. (2015) 'To educate you to be smart': disaffected students and the purpose of school in the (not so clever) 'lucky country'. Journal of Education Policy, 30(2), 237-257. DOI: 10.1080/02680939.2014.953596

Klenowski, V., & Carter, M. (2016). Curriculum reform in testing and accountability contexts. In D. Wyse, L. Hayward, & J. Pandya The SAGE Handbook of curriculum, Pedagogy and Assessment (Vol. 2, pp. 790-804). SAGE Publications Ltd. https://www.doi.org/10.4135/9781473921405.n49

Macqueen, S., Knoch, U., Wigglesworth, G., Nordlinger, R., Singer, R., McNamara, T. & Brickle, R. (2019). The impact of national standardized literacy and numeracy testing on children and teaching staff in remote Australian Indigenous communities. Language Testing, 36(2), 265–287. https://doi.org/10.1177/0265532218775758

McGregor, G. & Martin, M. (2012) Alternative education sites and marginalised young people: 'I wish there were more schools like this one'. International Journal of Inclusive Education, 16:8, 843-862, DOI: 10.1080/13603116.2010.529467

Spina, N. (2020). Data Culture and the Organisation of Teachers' Work: An Institutional Ethnography. Taylor & Francis Group.

te Riele, K. (2011) Raising educational attainment: how young people's experiences speak back to the Compact with young Australians. Critical Studies in Education, 52(1), 93-107, DOI: 10.1080/17508487.2011.536515

te Riele, K. (2012) Challenging the logic behind government policies for school completion. Journal of Educational Administration and History, 44(3), 237-252, DOI: 10.1080/00220620.2012.683394

Which of the following best describes you?

I have been both a secondary school teacher and pre-service tutor across multiple universities primarily based on pedagogical practice, assessment and literacy teaching. I am also a PhD student looking into schools that co-design learning with students.

Are you currently using any edtech tools (including learning games and GenAI) to support teaching and learning in the classroom?

Yes

If yes, what has been your experience with using these tools?

I have primarily used apps like Perplexity and SciSpace Copilot to synthesise data, support my own planning, collation of resources and synthesis of the research. They have been particularly helpful in streamlining my workload, improving the quality of my planning and practice, supporting my ability to share and find resources useful to my students, as well as have helped my own students improve their learning and practice (such as better engagement with research and expanding their own teaching practice). They have helped at times from a feedback automation standpoint - such as developing criteria or feedback sentence starters, rather than actually marking my work. I have not entrusted it in the latter as of yet given my work is primarily at university and am hesitant

to use this. I also am able to provide a lot of contextually relevant advice that I don't know if AI is as capable of providing the nuance we might as experienced teachers.

Are there things you would like to do with GenAI or edtech tools that you can't do currently? What's stopping you from doing these things?

Marking is a good example, as mentioned above. Enabling students to use AI and interrogate it, mainly due to the changing and uncertain landscape of assessment policy so far.

If no, can you tell us why you are not using any edtech tools?

The participant did not respond to this question.

Do you access lesson planning and curriculum materials online?

Yes

If yes, what has been your experience with using these tools?

They are rarely high quality and are too inflexible to suit diverse student contexts. They also rely so heavily on rigid practice - such as simple comprehension and teacher explicit instruction - that they fail to truly support higher order thinking for students. They also don't foster what we want to see in students, collaboration, critical thinking and creativity, which often takes deeper tasks - such as project based learning, inquiry and problem-based learning - that are developed over time and need additional scaffolding beyond what is presented in these materials.

If no, can you tell us why you are not using online lesson planning and curriculum materials?

The participant did not respond to this question.

Support the workforce through a flexible post-secondary education and training sector

Credit transfer and recognition of prior learning

In your experience, how well does the credit transfer and recognition of prior learning system operate in Australia? Does it adequately support students to move between courses or have their work experience recognised as part of a qualification? Are there ways it could be improved?

Generally I hear from overseas students that it is quite restrictive, where work and previous study content or qualifications are simply not acknowledged as 'up to standard'. A way to make this far more efficient is simply to offer more flexible and 'trial' or 'probationary' style courses or curriculum. For instance, subsidising short 4 week courses or something similar to actually better assess how capable such students are for the potential to gain credit into university or other degrees/qualifications. For overseas students in particular these courses are exhorbitant and if we were to be more flexible by offering subsidies for such 'bridging' courses that are more about actually assessing where students are at and then supporting them in aligning them to careers or relevant degrees that acknowledge their current knowledge and skills, then I think it would drastically streamline alignment.

Which of the following best describes you? Please select all that apply.

I am a current university teacher

In the past 3 years, have you applied for credit recognition or recognition of prior learning (RPL)?

The participant did not respond to this question.

If yes, what was your experience in applying for credit recognition or RPL like?

The participant did not respond to this question.

If no, can you elaborate on why you didn't apply?

The participant did not respond to this question.

Work related training

What are the main reasons individuals and/or businesses do or do not participate in work-related training?

Largely I imagine it is financial - lacking time and a lack of security or certainty to commit to this. Also the lack of certainty that comes with such experience to then lead to future work or qualifications. In high schools we are only really in recent years doing more to open these pathways, though the Year 10-TAFE pipeline remains not as smooth as it could be because of red tape.

What role, if any, should businesses be playing to address any barriers and better support the offer of work-related training to employees?

Contracts, whether short or medium term, could help bridge this gap with supporting both sides, such as including probation but guaranteed hours and potential government subsidies to businesses so that both employer and employee can benefit.

What, if anything, could government do to address barriers and better support the offer of work-related training to employees?

As mentioned above, subsidies and certifications at the end of experience could help make these more financially viable while they can assist with supporting either employer or employees with future pathways post-contract or experience/training.

Which of the following best describes you? Please select all that apply.

I am an employee/individual

For business owners, managers and sole traders, how many employees do you have?

The participant did not respond to this question.

For employees/individuals, have you participated in any work-related training in the last 12 months that did not relate to general compliance (such as WHS)?

Yes

If yes, can you elaborate on the reasons for the training and any benefits you received from doing it?

I have been involved in research work, primarily to secure potential future work in academia. The benefits are more about experience and connections with no financial benefit. It was an invitation, not mandated.

If no, can you elaborate on any challenges or barriers you faced in attempting to undertake work-related training?

The participant did not respond to this question.

For business owners, managers or sole traders, have you provided or supported your employees to participate in work-related training in the past 12 months?

The participant did not respond to this question.

If yes, can you elaborate on the reasons for the training and any benefits you or your employees received from doing it?

The participant did not respond to this question.

Can you describe whether you accessed any government assistance, what type, and the amount received? If you didn't access any financial assistance, please tell us the reasons why.

The participant did not respond to this question.

If no, can you elaborate on any challenges or barriers you faced in attempting to provide or support your employees to undertake work-related training, such as the time or cost, availability of relevant or high-quality courses, and level of interest from your employees?

The participant did not respond to this question.

Balance service availability and quality through fit-for-purpose occupational entry regulations

What are the effects of occupational entry regulations? Please describe your experience and name the specific occupations you are referring to.

The participant did not respond to this question.

Do you believe current occupational entry regulations are proportionate to the level of risk associated with different professions? Why or why not? If not, do you have any suggested improvements to regulations to better reflect risks? Please name the specific occupations you are referring to.

The participant did not respond to this question.

Which of the following best describes your connection to occupational entry regulations? Please select all that apply.

The participant did not respond to this question.

Which state or territory are you predominantly based in?

The participant did not respond to this question.

Cover sheet: Supporting document #1

Student Leadership in Learning: an exploration of possibilities for Student Choice in Negotiating NSW Curriculum

Grant Sciberras

A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Education (Educational Management and Leadership)

in the

Sydney School of Education and Social Work

Faculty of Arts and Social Sciences

The University of Sydney

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Introduction

A range of evidence across psychology (Su & Reeves, 2011; Patall, et al., 2008; Bureau, et al., 2022) and education (Wilson, et al., 2011; Steenbergen-Hu, et al., 2020; Howard, et al., 2021) provides weight to the importance of giving students more choice to better lead their learning. This idea has been correlated by the positive implications it has for student motivation and engagement (Patall, et al., 2008), particularly for differentiating learning to support students from a range of contexts and those who are often most vulnerable in the education system (Lindner & Schwab, 2020; Plows, et al., 2017). In contrast to this, there is strong evidence that in Australia and New South Wales (NSW), students experience a narrow, prescriptive curriculum and increasingly authoritarian teaching environment as they get into their teenage years, which is often a deterrent for these same students – whether highly capable or low ability (te Riele, 2011 & 2012), Indigenous (MacQueen et al., 2019), migrant (Klenowski, 2012) or from low-socioeconomic backgrounds (Graham, et al., 2015).

Given the complexity of drawing correlations between research on engagement, motivation and student learning outcomes, student choice is not often raised as a key issue to explore at a broader systemic level despite its implications for improving intrinsic motivation (Patall, 2008; Bureau, et al., 2022). This is likely because strong causal relationships for motivation, engagement and academic outcomes are only recently founded (Lei, et al., 2018; Howard, et al., 2021; Bureau, et al., 2022) and student choice in learning can be lost in the complex layers of stakeholders, processes and policies within modern education systems. However, mandates and requirements from state syllabus documents are likely a key factor in enabling or restricting student choice, potentially impacting teacher-student relationships (TSRs) and student motivation, at a systemic level within this NSW context and are worth further exploration. For this reason, this study looks to consider what are the opportunities and restrictions for students to lead their learning through greater choice within the Year 7-10 English, Science, Maths and History NSW syllabus documents? Furthermore, it asks the following key questions:

- How do syllabus documents frame and discuss the idea of student choice for NSW teachers?

- How much opportunity is there for student choice within and across these NSW syllabus documents?

This study has used a critical policy analysis (CPA) approach (Diem & Young, 2015) to investigate the language used across these syllabi in relation to student choice. By critiquing the discourse of student choice within these documents, the research aims to reveal the perspectives of syllabus writers who frame the use or absence of student choice for teachers to mandate, encourage or restrict these opportunities. Furthermore, by doing so it helps to reveal how measurable these opportunities are and to what degree they may be possible within the expectations and requirements of syllabus documents.

This research begins to investigate what represents a significant gap in both the literature on student choice and the broader discourse surrounding educational leadership and student motivation. Research on motivation and engagement, student agency and educational leadership are increasingly popular in recent decades, yet there is a lack of focus on two key areas this study explores:

- The role of student choice as one key element for motivation, engagement, student agency and educational leadership.
- Syllabus documents and their analysis in this space given their importance in influencing motivation and engagement, student agency and educational leadership.

Both students and syllabus documents are overlooked in these overlapping areas of research, despite their critical role as both receivers and enablers of these phenomenon from the classroom level all the way up to the education system level. As such, this study aims to explore the relationships between these inter-related phenomenon and factors to consider their potential for future research.

Literature Review

There is strong evidence to suggest that learning environments that give students greater choice build more positive teacher-student relationships (TSRs) and enhance student motivation (Howard, et al., 2021; Su & Reeves, 2011) which can improve student engagement, wellbeing and academic outcomes. However, within the NSW context,

systemic pressures appear to significantly impact on teachers' abilities to offer students choice (Spina, 2020; McGregor & Martin, 2012; Klenowski & Carter, 2016; Howard, et al. 2021; Bureau, et al., 2022) while potentially creating the conditions that put strain on TSRs because of the highly controlled learning environment that can exist without greater choice (Te Riele, 2011; 2012). Diagram 1 has been designed to help synthesise the need for exploring student choice at a more systemic level informed by research in the field.

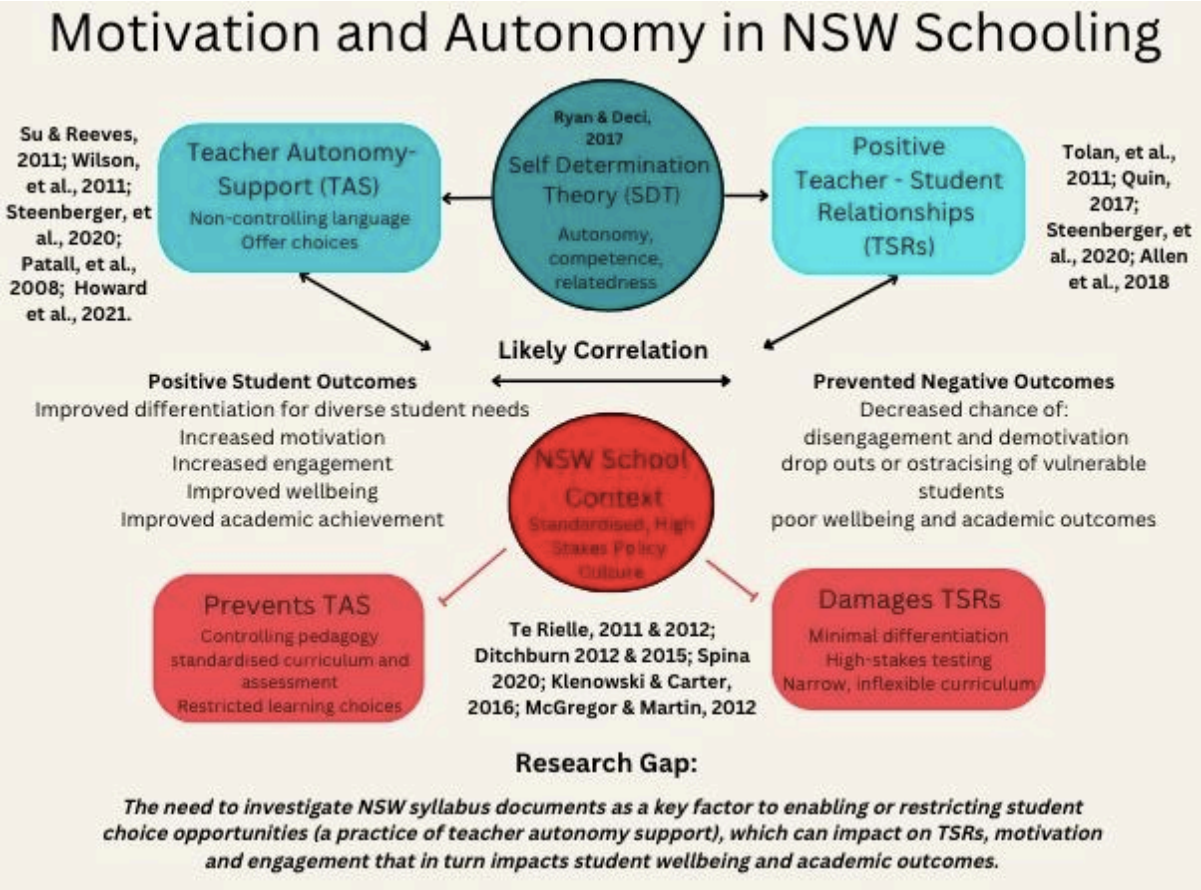

Diagram 1

Studies building on self-determination theory (Ryan & Deci, 2017) - the idea that an individuals self-determined motivation depends on how well their interactions with others meet their needs of autonomy, competence and relatedness - have helped to better understand the relationship between students' motivations and outcomes. For this study, these notions all have competing influences on how well the education system and teachers are able to motivate students based on how much autonomy students feel in their learning, as well as how competent they feel in any given learning experience and the potential for

relatedness (such as a student's sense of belonging and connection) in their classrooms and with teachers. Syllabus documents represent a key factor in how much autonomy teachers can offer students, particularly in the form of choice in their learning, while these pedagogical options and subsequent teacher decisions can significantly impact TSRs.

Su and Reeve's (2011) meta-analysis of 19 studies on the effectiveness of intervention programs designed to support autonomy demonstrates the conditions and significance of autonomy for classrooms. For teachers, 'autonomy support refers to what one person says and does to enhance another's internal perceived locus of causality, volition and perceived choice during action' (Su & Reeve, 2011, p.160). Furthermore, 'students are autonomous when they pursue their interests, study to satisfy their curiosity, and volitionally engage themselves in schoolwork' (p.160). Vasconcellos' (et al., 2020) meta-analysis synthesises this further to highlight that 'students will experience autonomy when they perceive an environment where they can perform tasks without feeling pressured, where the teacher welcomes students' thoughts, feelings and actions, rely on noncontrolling language, and where exploratory rationale is given so the content is seen as meaningful to their lives' (p.1457). Su and Reeve's (2011, p.162) specifically identify two of the key conditions found for creating student autonomy:

- Use non-controlling language - communications that minimise pressure (absence of "shoulds", "musts" and "have tos") and convey a sense of choice and flexibility in the locution of behaviour
- Offer choices - provide information about options, encouragement of choice-making, and encouragement of the initiation of one's own action.

Within this study, the language and requirements written into syllabus documents can play critical roles in how controlling or non-controlling language is for teachers and can frame the scope of choices available to them. As such, these likely shape students' own experiences of these elements of autonomy support.

Howard's (et al., 2021, p.1319) meta-analysis of 344 samples (223,209 participants) cements that autonomy support is critical for facilitating motivation but demonstrates more clearly how important motivation is connected between teachers' behaviour to student outcomes. It has been well established that to foster optimal student motivation, teacher's autonomy-

supportive practices should combine both student's intrinsic motivation (i.e., enjoyment) and identified regulation (i.e. meaningfulness of the learning), which relies on teachers understanding students as individuals (Howard et al., 2021, p1319). This means students' feelings and preferences should be acknowledged, hence a greater need for choice and personalisation of learning, which 'implies minimizing the use of controlling language and behaviour' (Howard et al., 2021, p.1319). Furthermore, Howard (et al., 2021, pp.1319-20) highlights how 'these positive interpersonal gestures' between teachers and students lead to increased meaningfulness of learning and intrinsic motivation that in turn lead to adaptive academic outcomes and 'are supported by the demonstrated effectiveness of interventions designed to increase autonomy-supportive teaching practices.' See Table 2 for Howard's (et al., 2021, p.1308) characteristics of adaptive and maladaptive outcomes, categories and measures that were often used in the motivation literature.

Table 2. Classification of Outcomes Into Adaptive and Maladaptive Categories

Adaptive		Maladaptive
Academic performance (objective)	Academic performance (self-report)	Physical-image anxiety
Satisfaction (general)	Enjoyment	Absenteeism
Effort	Self-esteem	Dropout intention
Continuance intention	Self-efficacy	Anxiety
Intent to exercise	Mastery approach	Depression
Physical activity	Performance approach	Boredom
Engagement	Vitality	Negative affect
Positive physical image	Positive affect	
Social-emotional functioning		

Note: Mastery avoidance and performance avoidance were not included in this classification because they are neither clearly adaptive nor clearly maladaptive.

Other meta-analyses have revealed the positive effects teachers' autonomy support can have on elementary and high school students' academic performance, intrinsic motivation, and academic engagement (Okada, 2018, as cited in Okada, 2021); in educational settings, including greater engagement, higher quality learning, a preference for optimal challenge, enhanced intrinsic motivation, enhanced well-being, and higher academic achievement for students (Su & Reeve, 2011, p.160); and potentially for university level students with small impacts on academic performance, and medium to large influences on motivation for academic learning and equally for basic psychological needs satisfaction (Okada, 2021, p.10).

Bureau and colleagues (2022) conduced a meta-analysis that reviewed over 144 studies (including more than 79,000 students) revealing that teacher autonomy supports were more significant than parents, particularly as students got older. It also highlighted that competence is the most positive predictor of self-determined motivation, followed by autonomy and then by relatedness (Bureau et al., 2022). These findings are significant because of the role a syllabus can play in creating an environment that fosters more competence and autonomy. Hypothetically, with greater student choice in a syllabus document, teachers may be enabled to not only offer students greater autonomy, but also better cater the learning and negotiate with students so tasks and content better align with their abilities. As such, language that is less-controlling and more negotiable for teachers and students has the potential to better meet both the needs of competence and autonomy by enabling far more opportunity for differentiation. Logically, this could further enhance students' relatedness and subsequently improve TSRs.

In contrast to intrinsic motivation inspired by autonomy-supportive environments, Howard's (et al., 2021) study revealed motivation driven by extrinsic rewards or pressures (such as avoiding punishment) was not associated with student performance or persistence, but was associated with decreased wellbeing. They further highlighted that external incentives and punishments (such as teachers punishing bad behaviour) came at the cost to student wellbeing within these controlling environments (Howard et al., 2021, pp.1319-20). Both authors emphasised broader systemic issues, such as standardised testing cultures or pay-for-performance policies, can pressure teachers into more controlling practices and stifle the autonomy-supportive practices and subsequent benefits to students (Bureau, et al., 2022, p.65; Howard et al., 2021, p.1320). Howard (et al., 2021, p.1320) specifically identifies Australia and NAPLAN as one example of the pervasiveness of such high-stake testing policy. Bureau (et al., 2022, p.65) even suggests reforms that work from the bottom-up to help teachers adapt their practice can help promote these autonomy-supportive practices, which would be a better use of resources rather than more teacher professional development or intervention programs that likely struggle to be sustained or changed considering broader system pressures and restrictions.

Several studies have highlighted the positive effects of good TSRs given interventions to reverse the underachievement of gifted students (Steenbergen-Hu, et al., 2020, p.157); they have strong correlations with creating a feeling or sense of belonging for students (Allen, et al., 2018, p.28); they play an important role in student engagement (Quin, 2017), particularly for students with low engagement (i.e. psychological engagement, academic grades, attendance, disruptive behaviours, suspension and dropout); and mentoring interventions – arguably another form of TSRs – show positive effects for high-risk youth in outcomes of delinquency and academic functioning, with trends suggesting similar benefits for reducing aggression and drug use (Tolan, et al., 2011, p.9). Belonging itself is beneficial for both academic (such as motivation, competence, positive attitudes towards learning and self-efficacy, less absenteeism, less truancy, less misconduct and better school completion) and psychosocial (higher levels of happiness, psychological functioning, adjustment, self-esteem and self-identity; while inversely related to incidences of fighting, bullying, vandalism, disruptive behaviour, emotional distress, risk taking behaviour such as substance and tobacco use, and early sexualisation) outcomes (Allen, et al., 2018, p.2). These findings are significant when we consider the importance of a flexible curriculum and student choice to both autonomy-support practices and better TSRs within the Australian and NSW contexts below.

In a systematic review of inclusive education, a key barrier to autonomy-supporting practices like differentiation and individualisation of student learning was a lack of resources; however, flexibility of curricula could help, while adjusting assessment and content can help students gain access to curriculum and achievement of goals (Lindner & Schwab, 2020). This is relevant to this research for several reasons. Firstly, both interventions for reversing underachievement of gifted students (Steenbergen-Hu, et al., 2020) and a systematic review of student dropout and intervention programs (Wilson, et al., 2011) often used more personalised or individualised learning and instruction, alongside more autonomy which implicitly reflect a more flexible curriculum. Each study demonstrated positive effects – whether reduced dropout rates or increased school completion (Wilson, et al., 2011) or finding school more meaningful, relevant and motivating (Steenbergen-Hu, et al., 2020, p.157) - as a result of differentiation. Furthermore, Patall's (et al., 2008) meta-analysis highlights that choice enhances intrinsic

motivation, effort, task performance and perceived competence. Choice has a particularly greater effect on children – it's hypothesised that this is because of the lack of choice opportunities they have – and giving successive choice opportunities is important, though roughly 2-4 choice tasks is optimal (Patall, et al. 2008, p.297). While choice has a positive effect on subsequent learning, though not statistically significant; however, the experiments were brief, which may hint that more frequent choice over a longer term would have significant long-term effects on subsequent learning (Patall, et al., 2008, p.294).

This overlapping of choice, differentiation and TSRs for a variety of positive schooling and personal outcomes appear to not only influence on another, but hint at a symbiotic relationship, whereby student choice can better enable differentiation, which can in-turn lead to better TSRs across the vast array of contexts the previous studies have investigated. Several motivation interventions reviewed here – spanning a variety of different student populations – show promising results (averaging a half a standard deviation in effect size) for enhancing educational outcomes (Lazowski & Hulleman, 2016). Given motivation is a key sign of engagement, this is also significant as Lei's (et al., 2018) meta-analysis found that all engagement (whether cognitive, emotional or behavioural) showed positive correlations (at times at least moderate or more) with student achievement. There also appears to be a serial relationship from emotional to cognitive to behavioural, whereby emotional is defined as including students' reactions to teachers, their sense of belonging and level of interest in their learning (Lei, et al., 2018, p.519 & p.525).

However, within the Australian context there is strong evidence that students' experiences are of a highly narrow curriculum with little differentiation or choice opportunities. Spina (2020), McGregor and Martin (2012) and Klenowski and Carter (2016) all demonstrate within Australia the pressure of accountability policies has led to a narrowing of curriculum and devaluing of skills and knowledge not found in tests as teachers increasingly control the pedagogy, pace and content of lessons. The work of Te Riele (2011; 2012) in alternative school settings and with student 'drop-outs' demonstrates how students experience a boring and irrelevant curriculum and lack of support for both high and low achievers. Students here also often leave mainstream settings because of the authoritarian nature of teaching (Te Riele, 2012), while these alternative settings often have a more flexible

curriculum, timetable and definition of success to differentiate for students (Plows, et al., 2017). We also know for students from diverse backgrounds – whether migrant (Klenowski, 2012); Indigenous (MacQueen et al., 2019) or low-SES (Graham, et al., 2015) who often end up in these alternative or 'second chance' schools – that this narrowing of curriculum ostracizes, rather than differentiates learning for them. Given this contextual background, there is significant evidence for finding systemic ways to provide more opportunities for student choice – both for the benefit of students learning themselves, as well as to improve TSRs.

The work of Ditchburn (2012) is the only significant critical policy analysis (CPA) related to these problems that examined the Australian curriculum, which she describes as a conservative, prescriptive and top-down document, making implicit assumptions about knowledge, pedagogy and power that hide or narrow opportunities and choice in classrooms. However, outside of key quotes from the document, Ditchburn (2012) doesn't reveal a clear methodology or CPA framework beyond themes inspired by Frierean critique and the ideas of power related to students (most relevant for this study). Similarly, Ditchburn's (2015) CPA of the History syllabus within the Australian Curriculum offered a different methodological process, analysing the text through the theoretical binaries of a 'thin' and 'thick' curriculum as described in the work of Geertz (1973). Geertz (1973) used these binaries to describe how acts could be interpreted 'thinly' (through a singular perspective) or 'thickly' (from a multiplicity of perspectives). For Ditchburn (2015, pp.34-7) the current History curriculum is 'thin' as its prescriptive and scripted nature creates a 'knowledge ceiling', leads to a 'tick off' checklist of content items for teachers that treats knowledge as singular and defined, rather than multiple and contested – inherently disregarding the diversity of local contexts and communities' knowledge. This implicitly restricts the pedagogical options for teachers, treating pedagogy as insignificant or at least disconnects its importance in the process of learning and its connection to curriculum (Ditchburn, 2015, pp.34-7). In terms of students, this creates a curriculum where they are 'acted upon' rather 'than acting' - in contrast to Boomer's (1992) notion of a negotiated curriculum where they are invited and working with teachers in co-constructing curriculum – and students are treated largely as a homogenous group of passive objects (Ditchburn, pp.37-8).

Within the broader literature of syllabus analysis, it is far more common to find research on syllabi at a university level. The work of Karanja and Grant (2020) is perhaps closest to this research project's aim as it attempted to evaluate the 'learner-centredness' of course pedagogy in a project management syllabi. Their work did not have a set framework to copy, although they define a learner-centred syllabus as the 'sharing of power between the learner and the teacher, with the learner getting directly involved in setting the course goals and how to achieve them' (Karanja & Grant, 2020, p.135) - similar to the student voice description of Mitra (2018) and Boomer's (1992) negotiated curriculum model. Ultimately their work is useful methodologically to further legitimise the use of content and discourse analysis, which can be used both quantitatively and qualitatively, to code data from syllabi (Karanja & Grant, 2020, p.136).

Methodology

To understand how student choice in learning is conceptualized in NSW syllabus documents, this research employs a Critical Policy Analysis (CPA) methodology (Diem & Young, 2015). CPA interrogate policy roots, processes and products to explore issues of power and voice, particularly "white spaces" or silences (Diem & Young, 2015, pp.841-2), such as the opportunities for students' choices and voices to be present or absent in the syllabuses of the NSW curriculum policy documents. Furthermore, CPA asks questions to reveal "loss of opportunity or lack of opportunity" and seek to identify "who's not represented and why" (Diem & Young, 2015, p.842).

These underlying aims of CPA align with the research questions of this study, although there is no uniform practice of CPA scholars (Diem & Young, 2015, p.843) and 'there is no standard method for the analysis of policy discourses' (Carpenter, et al., 2014, p.1117). There are few studies exploring similar phenomena in syllabus documents, thus the methodology has been informed by studies of a similar nature and what is seen as common practice among CPA scholars. Common among CPA methodology is the notion of "concentrated looking" so to develop deep understanding to engage in critical policy inquiry (Diem & Young, 2015, pp.844-5). By looking closely at a combination or at least one of four

types of data – observations, interviews, contextualising information and policy texts (Diem & Young, 2015, pp.844-5) – CPA research can adequately draw conclusions to critique the silences, hidden intentions and potential consequences of policies from their creation through to implementation.

This study is limited to focusing on policy texts – namely NSW syllabus documents from Year 7-10 in the disciplines of Science, History, Mathematics and English – in order to draw out opportunities or restrictions for students' choices in their learning. These syllabus documents represent a substantial portion of students schooling experiences given Year 7-10 are the final years of mandatory education in NSW, while these 4 subjects represent nearly half of the mandatory subjects students must study during this 4 year period (Science, Mathematics, English, Geography, History, PDHPE, Technical and Applied Studies, Visual Arts and Music are studied between Year 7-8, while the first 5 subjects remain mandatory alongside 2 electives in Years 9-10). As such, they represent a significant portion of time in students learning. They also represent significantly different disciplinary areas – commonly referred to as STEM and Humanities fields – that can have different learning demands in terms of content and assessment. While schools have flexibility to organise their timetables and resources they may be limited by the school infrastructure, budget, teacher qualifications and staffing, these syllabus documents are a common experience given the mandatory requirements of these curriculum areas.

Given the significant gap in research in this space, the closest studies of a similar nature are the work of Karanja and Grant (2020) and Ditchburn (2012 & 2015). The former aimed to evaluate the learner-centredness of course pedagogy in project management syllabi at a tertiary level (Karanja & Grant, 2020); while the latter has applied a CPA approach to critique the Australian History curriculum (Ditchburn 2012 & 2015). Karanja and Grant (2020, pp.135-6) used content and discourse analysis to investigate the degree to which the course syllabus created a 'sharing of power between the learner and the teacher, with the learner getting directly involved in setting the course goals and how to achieve them.' These methods allow for both quantitative and qualitative code data to draw messages from the syllabi in a more reliable and valid fashion, offering 'researchers opportunities to generalise, replicate, or test hypotheses' (Karanja & Grant, 2020, p.136). As Neuman (2013, p.373)

highlights, 'content analysis can be used to reveal messages in a text that are difficult to see with casual observation.' As such, this study first analysed the data using manifest coding by listing words or phrases related to the discourse a reader could expect to see for student choice opportunities to identify and count in a text (Neuman, 2013, pp.274-5). This helped to draw out quantitative data that could support conclusions about student choice opportunities and map both the presence or absence of these phrases, while allowing themes to emerge and leaving a footprint for further latent/interpretive coding. This counting was then combined with colour coding for phrases, sentences or paragraphs along a scale from mandated (green) to implied/encouraged (orange) to restricted/pre-determined (red) student choice opportunities in the syllabi. Colour coding has been suggested for interpretive content analysis based on key ideas or research questions being answered (Davies & Hughes, 2014, pp.218-25), while it offers researchers an audit trail for which data was identified (Drisko & Maschi, 2015, pp.61-2). Combining manifest with interpretive (or latent) coding can help the latter to find implicit meaning that may be missed in the manifest phase (Neuman, 2013, pp.274-5).

Ditchburn's (2012 & 2015) work also didn't reveal a clear methodology, specific framework or share quantitative data from their critique of the Australian curriculum documents. However, Ditchburn (2012) did rely on Frierean ideas of power – reminiscent of CPA scholars interpretive process – and Geertz (1973) binaries of 'thin' and 'thick' where acts can be interpreted from a singular (thin) or multiplicity (thick) of perspectives. This reflects what Neuman (2013, p.274) might describe as measuring the intensity of a message – the strength or power of a message in a direction (e.g. active to passive; characteristics of forgetfulness from minor to major). I similarly aimed to measure this intensity from the perspective of how active or passive students were positioned by the language in syllabus documents, which helped to triangulate the manifest and interpretive data analysis. As such, I used three measures of data that Neuman (2013, p.274) highlights are often drawn from content analysis:

1. **Frequency** – *whether or not something occurs, and if not, how often* – evident in our manifest coding of terms such as 'students choose' or 'co-design' (see Table 1 of results in the discussion).

2. **Direction** – *the direction of messages along some continuum* – from mandated to implied/encouraged to restricted/pre-determined student choice opportunities (see sub-headings in the discussion sections).
3. **Intensity** – *the strength of power of a message in a direction* – the language used to position students as either active or passive in their learning in syllabus documents (see examples from the Table 2 in the discussion).

Throughout this process, I tried to maintain what Liamputtong (2009, p.282) describes as an ethnographic content analysis approach that involves revising and adjusting categories and themes as an ongoing process in the data collection.

While this ethnographic content analysis approach helps to reduce inaccuracies and offer complimentary evidence to support conclusions, there are obvious limitations in this study. Given the timeline and word count available for this dissertation, the ability to draw on other policy data or the experiences and perspectives of stakeholders who are involved in syllabus development and implementation was clearly missing. Considering the lack of time to explore contextual information, such as other policies that impact on these syllabi and potentially influence teacher practice, these documents may be limited in revealing what potential opportunities or restrictions teachers face in enabling student choice in their contexts. Furthermore, as the sole coder in this research project and my training as an English and History teacher, there are inherent risks of researcher bias and a lack of expertise to interpret syllabi outside my field of qualifications – namely the Science and Mathematics curriculums. However, my experience in navigating, interpreting and using syllabus documents as a teacher helped to counter this, while extra time was spent to understand differences between Science and Mathematics syllabi given my expertise when interacting with English and History syllabi. There are also inherent challenges and limitations within the broader CPA methodological process given the lack of tested or replicable frameworks and measurement tools in this space, particularly when looking at student choice opportunities. As this study was conducted in under 6 months the data collection was restricted by the lack of opportunity for using methods that would require ethics approval, thus limiting options to publicly available data.

Given no studies have been conducted to consider the phenomenon of student choice opportunities, particularly at a systemic level, there is no methodological framework or data measurement tools to draw upon for replication in this research. Nonetheless, to help mitigate the above limitations, risks and lack of previous framework or tools, I have included multiple examples from each syllabus document that demonstrate where my conclusions have been drawn from and why they may be valid (or are transparent enough to be contested). The examples provided throughout the results and discussion draw upon key sections of the Introduction that are used across each syllabus, alongside the language used primarily from each individual syllabus' own skills, outcomes and contents sections.

The language in the Introduction is replicated across each syllabus and has distinct discussion of ideas related to student choice revealing syllabus writers' perspectives on it. These sections further advise teachers directly about student choice in terms of collaborative curriculum planning and differentiation for learners. Given each syllabus uses the exact same language in these Introduction sections, it adds further evidence of the hidden intentions and assumptions made by syllabus writers when considering student choice in teaching and learning design. This is discussed instead of other sections of the syllabus documents – such as the aims, rationale, objectives and stage statements – as they are not mandatory in their language, differ vastly from one syllabus to another and their intentions are revealed more clearly and directly in the outcomes and contents which will be discussed. Furthermore, for teachers, the skills, outcomes and contents sections in each syllabus provide mandated directions and requirements for how learning should or must be structured – this accountability relationship is revealed in Figure 1. As such, these sections are most valuable for their impact on a teacher's ability to provide student choice from each syllabus therefore examples will be provided throughout the discussion and in the Appendix to help show to what extent students have choice in their learning.

Discussion & Results

Introduction of Results – Contextualising Choice and the Syllabus Sections to be Discussed

The discussion of results will move from the broad trends in the discourse of student choice revealed across the syllabi, through to the degrees of student choice opportunities within

each syllabus and then finally a discussion of the student choice perspectives revealed in the introduction which is shared across all syllabi.

The analysis of the Syllabi revealed the following core findings:

1. Practical student choice opportunities are inherently difficult to capture through syllabus documents given their interpretive nature as well as other factors not considered or dependent upon the syllabus – such as teacher's time, resources, perspectives and pressure from external stakeholders. This research can only analyse theoretical opportunities for choice presented in the documents and consider the extent to which the language of the opportunity promotes, discourages, encourages or mandate choice.
2. The extent to which there is authentic choice for students, or even teachers, is limited given the syllabus documents are not written by them and therefore all processes, outcomes and content are pre-determined.
3. The language associated with student choice is almost always passive, with choice implied rather than mandated.
4. When co-designing curriculum planning is offered to students, it is always done in relation to accessing the syllabus. It is not suggested as something to be done exclusive of or despite the syllabus, but to differentiate for learners to meet the syllabus outcomes or to accelerate through the syllabus (for example, move onto topics at a faster pace than other students in the same class or begin learning that is expected to be covered later in their high school learning journey – from Stage 4 to 5 for instance).

To help explain this challenge of measuring how much student choice opportunity there is in any of the syllabi, I have used the term 'interpretive flexibility' throughout the rest of this discussion to describe the degree to which a teacher could interpret the language of the syllabus to offer students choice or not. Where student choice is more possible, the language has 'interpretive flexibility'; whereas if there is little to no room for student choice to be interpreted from the language then it would be inflexible or have minimal 'interpretive flexibility'.

The Language of Choice and Lack of it Used Within Syllabus Documents

Table 1 below developed throughout the manifest coding process in order to find any explicit language used or missing within each syllabus area that would have directly implicated students as active agents in their learning. Terms like 'choice', 'choose', 'co-design' or 'co-plan' that don't appear at all across the syllabi help to show the lack of more active discourse that could mandate or encourage this idea of student choice in teaching practice. Other terms that indicate student engagement such as 'interests' and 'goals' are also rarely used, and the few instances that are evident are expressed passively. For example, goals are mentioned in the same sections as all other syllabus documents, but these are not mandatory and are often spoken as led by the teacher. See the quote below that is most directly referring to students' goals but is the only mentioning of the term in this context across the syllabi and is in reference to teachers reporting of outcomes relevant for students with disability.

> 'For students with disability, teachers may need to consider, in consultation with their school and sector, the most appropriate method of reporting student achievement. It may be deemed more appropriate for students with disability to be reported against outcomes or **goals*** identified through the collaborative curriculum planning process.' (NSW Education Standards Authority [NESA], 2012, p.135; NESA, 2019a, p.188; NESA, 2019b, p.469; NESA, 2019c, p.94)

This lack of active language shows the discourse surrounding student choice creates a document that treats students as passive receivers of the curriculum and teachers as the deliverers of its outcomes and content.

Terms or Phrases of Potential Choice	**English (K-10)**	**Science (7-10)**	**Maths**	**History**
Student choice	0	0	0	0
Students choose	0	2 - in regards to equipment or resources for an investigation (p.33 & 48)	0 (however, implied opportunities in terms of Working Mathematically)	2
Students plan	0	3 - in regards to an investigation	0	0

		(p.33, 48 & 73 - Life Skills)		
Student goal/s*	0	0	0	0
Student agency	1 (found in Organisation of Content, p.21, as an intention, not mandate)	0	0	0
Collaborate	1 (Stage 3)	0	0	0
'Collaborative curriculum planning'	5 - all in reference to students with a disability	5 - all in reference to students with a disability	5 - all in reference to students with a disability	5 - all in reference to students with a disability
Interest/s** (as in student or audiences' interests) - not looking at making a student interested in a subject, but drawing on it or considering it to design the learning, content or outcomes.	4	1	1	0
Co-design	0	0	0	0
Co-planning or planning with students	0	0	0	0

Table 1

**Excluding what was found in the glossary (1 instance in each); life skills and organisation of content. The term interest is used frequently throughout Mathematics in the sense of financial literacy – such as 'interest rates' or 'compound interest'.

Student choice, when it was evident in the data, was more often implied, rather than mandated. This spectrum from mandated to implied to restricted is somewhat mirrored in the spectrum of passive to active language alluded to earlier as it shows how there are degrees of choice that may be interpreted by teachers. While the phrases below could be

more active depending on the sentence – for example, *students use equipment to conduct their investigation* or *students describe a topic of their interest* - these phrases are not being used in this light. Instead, they are pre-determined outcomes they must address, strict content or pre-determined concepts they must show their understanding of. An example of some of this discourse is available in Table 2.

Passive	Active
Students respond; students enjoy; *students use*; *students describe*; students identify.	*Students compose*; a student reflects on; a student plans.

Table 2

This passive to active spectrum helps to show two of the fundamental findings. Firstly, this snapshot of the language demonstrates the pre-determined nature of the language used as even the more active phrases tell students what they must do or must show. Throughout each syllabus there is no asking students to set their own outcomes nor is there anywhere that mandates that teachers must let students set their own outcomes. Secondly, it helps to demonstrate the subtle differences in language that can provide learning opportunities where choice may be clearly restrictive and non-existent, in comparison to terms that may offer teachers the flexibility to interpret giving students some choice in their learning. The following example can help to show this dual challenge of finding or counting opportunities for student choice, as well as the interpretive flexibility of language for teachers to decide if they want to give it or if it is feasible in their programs. For instance, *students compose* (active) a text of *their own choice* for their *own purpose*. The same interpretive flexibility could be possible for 'students respond' (passive), although the text choice and purpose of responding is dependent on the outcomes teachers must decide to assess and/or the text requirements of their learning. However, these examples are outcomes from the English syllabus, which offer far more interpretive flexibility and are far less restricted by pre-determined content than the other syllabi investigated. This interpretive flexibility is an outlier among the syllabi and is still obviously restricted by other factors, such as time and resources, specific to teachers' contexts. Furthermore, these nuances reveal the need to explore the inherent contradictions when considering the relationship between processes, outcomes and content.

Process, Outcomes, Content - The Contradictions of Choice within Each Syllabus

Each syllabus document structures teachers programming with the discipline or key learning areas (KLA) processes at the core of its purpose for learning, which is then broken down into outcomes and content. As can be seen in Figure 1, these processes are filtered down into outcomes and content, but the latter are broken down into very specific 'dot points' that act almost as a checklist to organise the teachers' sequence and assessment of students learning in their KLA. The language of the processes across the syllabi is often active and provides teachers with interpretive flexibility for student choice, however, they are regularly restricted by the inflexibility of language used in the outcomes and/or the content. Broadly speaking within this framework from Figure 1, teachers can offer students choice in their learning by either:

1. Allowing students to choose the content (knowledge, concepts or topics) of their learning
2. Allowing students to choose how they present, demonstrate or show their understanding of the content.
3. Or hypothetically both, although given the inflexibility of the outcomes and/or content this is not an option despite the flexibility in some of the language used in the processes of KLAs .

This third option reveals the underlying contradiction of this framework. When looking at the differences between the syllabi below, even though the language used in the processes can be very active and give room for teachers to interpret for designing learning with student choice embedded, this is contradicted by the breakdown of mandated outcomes and content that is highly prescriptive with minimal interpretive flexibility. When the processes are filtered down into the outcomes and content for each syllabus, they inevitably become more prescriptive and increasingly harder to interpret from a student choice perspective because either the content, outcomes or both leave less room for this kind of interpretive flexibility. This reflects similarly to Ditchburn's (2015) spectrum of 'thin' and 'thick' knowledge perspectives, in that the processes offer 'thick' (multiple perspectives) interpretations, but the outcomes and/or the content are often very 'thin' (offering teachers only one or few perspectives of interpretation).

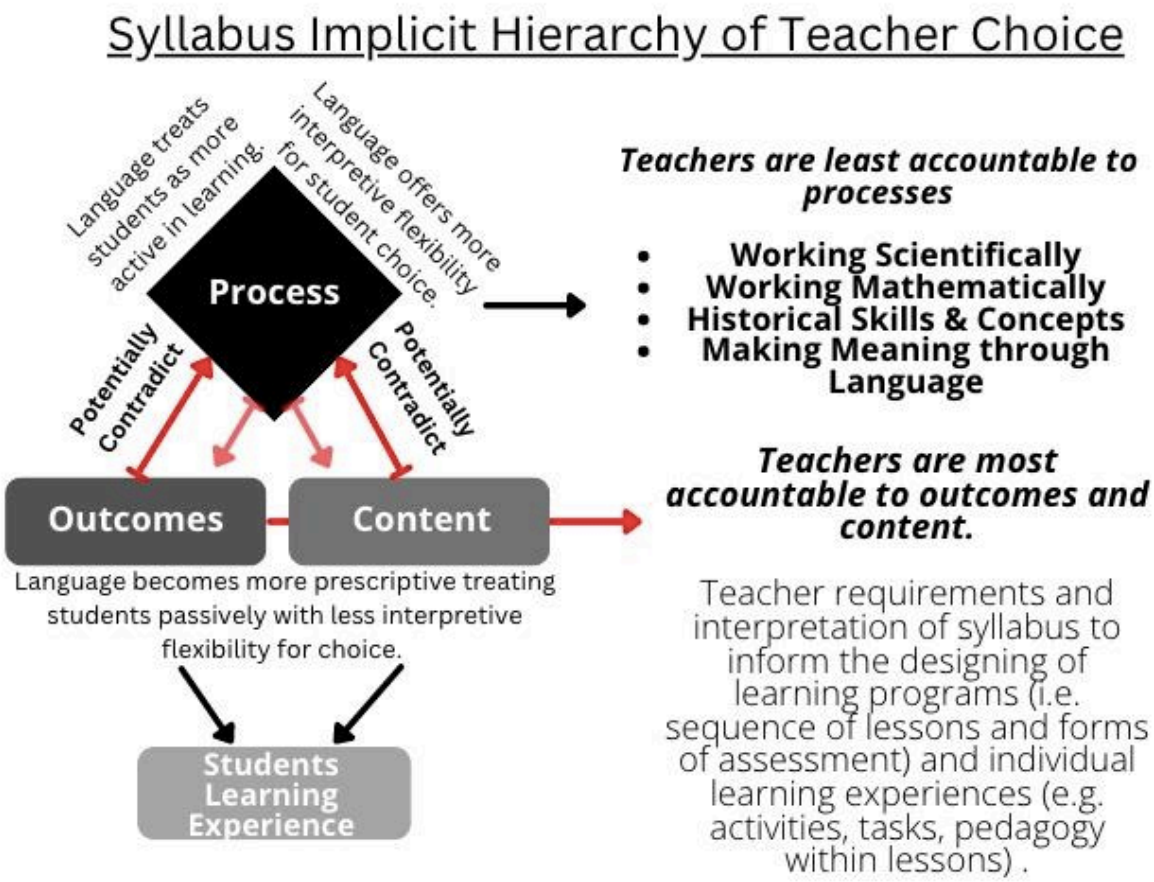

Figure 1

By looking at examples from each syllabus, it becomes clear that even if the language in Working Scientifically or any other KLAs process is active and open to interpretation, teachers' choice implicitly or explicitly become restricted by the language used in the outcomes, content or both. This finding was not as evident in the English syllabus as its outcomes are more open to interpretation and its mandating of content is far less prescriptive relative to the other KLAs. However, its restrictions come from the text requirements (the content of English) students must be exposed to across each stage.

Pre-determined Assessment Outcomes and Degrees of Choice

This section will discuss the spectrum of syllabus language that mandates choice through to that which restricts choice by sharing examples of each across the syllabi. Given the interpretive nature of syllabi, the remaining data shows that despite the pre-determined outcomes in the syllabi, there is room for student choice to different degrees depending on

how the processes, outcomes and content are interpreted, their interpretive flexibility and the differences in how the framework in Figure 1 interacts within different KLAs.

1. **Mandated Opportunities for Choice**

Across each syllabus the only mandated opportunity for student choice that both requires and encourages choice from a processes *and* content standpoint is found in the Science syllabus. For Science teachers, they must program 'at least one substantial student research project during Stage 4 and Stage 5' (NESA, 2019c, p.27). Within these projects it is mandated that one must 'involve hands-on practical investigation' and in Stage 5 must be 'an individual task' (NESA, 2019c, p.27). While the projects don't mandate that students' interests drive the project, it says 'teachers should 'consider these and encourage students to 'address problems relevant to their immediate environment' (NESA, 2019c, p.27). The language within this project is the most explicit in making it a learning experience of students own choosing. This is particularly evident in the language boldened below:

> 'Class time should be allocated to **assist students in clarifying their question or problem** to be investigated... [and] …Students should also be supported in planning **their** investigations, carrying out research, evaluating evidence and conclusions, and communicating results, findings and explanations to others' (NESA, 2019c, p.27)

Despite opportunities for choice that might be implied in the other syllabi examined, this is both the only time where the learning is mandated to be the students own and the support offered by teachers uses active, agentic phrases like 'their question' and 'their investigation' (NESA, 2019c, p.27).

The language used in the processes across all the syllabi at times directly mandate – or remain neutral and thus interpretively flexible – elements of choice in students learning, as can be seen in some examples used in Table 3 below. However, these processes are not simply left on their own for teachers to decide how students can learn them and learn through them. Instead, the organisation of outcomes and content sequences and states the options teachers have for how students develop these processes, as will be evident in the remaining sub-sections of this discussion. English processes have not been included below because the outcomes are very similar to the processes while their language is more flexible than the KLAs below and this will be elaborated on in later sections.

Working Scientifically (NESA, 2019c, p.15)	**Working Mathematically** (NESA, 2019b, pp.32-3)	**Historical Skills** (NESA, 2012, p.21)
A student: 'develops questions or hypotheses…' 'produces a plan to investigate identified questions, hypotheses or problems…' 'undertakes first-hand investigations to collect valid and reliable data…'	Communicating 'Students develop the ability to use a variety of representations…' Problem Solving 'Students develop the ability to make choices…' Reasoning 'Students…deduce and justify strategies used and conclusions reached Fluency 'Students develop skills in choosing appropriate procedures, carrying out procedures flexibly… choose appropriate methods and approximations…'	Research 'ask and evaluate different kinds of questions about the past to inform an historical inquiry' 'plan historical research to suit the purpose of an investigation' Analysis and use of sources 'process and synthesise information from a range of sources as evidence in an historical argument'

Table 3

2. **Implied, Allowed or Encouraged Opportunities for Choice**

In addition to the mandated choices above, there are opportunities for student choice frequently occurring with reference to outcomes or content from the syllabus. The examples below show that even though teachers may consult or offer students opportunities to explore topics of interest or express their knowledge or skills with some choice of how to do so, their mastery of the KLA processes depend on demonstrating pre-determined outcomes or understanding of pre-determined content.

Examples of Outcomes or Content that Contradict Active Student Choice Language

In History, below are the only two examples of giving students the chance to choose a topic within a broader, pre-determined area of interest (see the boldened text). However, the italicised language shows the questions they are answering themselves are even more restricted.

Stage	**Content**
Stage 4 (NESA, 2012, p.57)	Students: • using a range of sources, including digital sources, eg UNESCO World Heritage criteria for ancient sites, **choose ONE site** to *explain why it is important for a chosen site to be preserved and conserved*

Stage 5 (NESA, 2012, p.89)	Students: • **choose ONE Asian society from around 1750** and: – *identify key physical features and geographic extent* – *describe the structure of the society* – *explain the role of leaders* – *outline key features of the economy* – *describe main religious beliefs and cultural features* – *discuss the lives and work of men, women and children*

There are two longer learning experiences that offer potential for choice within the History curriculum. Firstly, students must complete a site study in Stage 4 (NESA, 2012, p.24) and Stage 5 (NESA, 2012, p.25), which are intended to 'enable students to understand their historical environment and participate **actively** in historical inquiry' (NESA, 2012, p.26). However, 'teachers **must** identify the objectives and outcomes relevant to the site study' (NESA, 2012, p.26). This does imply that teachers may be expected to use the outcomes within the History curriculum, but there may be possibility for teachers to co-design these with students and there is no indication that the sites of study – such as museums, public buildings, railways and more (NESA, 2012, p.26) - could not be chosen by students. Secondly, Depth Study 6 in Stage 5 offers the chance for teachers to teach a school-developed topic. While the topic must be 'drawn from the content presented in the Stage 5 overviews, '*The Making of the Modern World'* or *'The Modern World of Australia'* the 'relevant outcomes **should** be chosen to support the topic developed' (NESA, 2012, p.101). So there are a broad range of topics that could offer students choice in the content of their learning, while the outcomes could be co-designed, chosen or made by the students. If teachers are flexible and creative in how they design this school-developed program, there could be opportunities for students to choose the skills that are assessed and the nature of the learning.

For History, Science and Mathematics more broadly, teachers could offer students choice in their learning in the instances where the content and outcomes have interpretive flexibility by allowing different ways for students to present their findings or learning. For instance, the History stage outcomes below could be presented in written, oral or multimodal forms. However, these History stage outcomes highlight this tension between the language of processes, outcomes and content from Figure 1 given other opportunities for choice

increasingly become reduced, even if originally open for interpretation. See Appendix A for the broader outcomes, but below is an example from both Stage 4 and 5 (NESA, 2012, p.14):

Objectives Students: • Develop knowledge and understanding of the nature of history and significant changes and developments from the past, the modern world and Australia	
Stage 4 outcomes A student	**Stage 5 outcomes** A student:
HT4-1 describes the nature of history and archaeology and explains their contribution to an understanding of the past	**HT5-1** explains and assesses the historical forces and factors that shaped the modern world and Australia

The objectives reflect more of the language that appears in the processes of History (the Historical Concepts and Skills), the outcomes narrow into what students must do (e.g. describes, explains and assesses) and content describes what they must show knowledge about (e.g. archaeology, factors that shaped Australia). Furthermore, within the organisation of the outcomes and content that teachers must choose from, this language becomes further restrictive and prescriptive. This same relationship is repeated when one looks at each syllabus document.

Below is an example of outcomes (NESA, 2019c, p.15) showing the language used in Science that may offer opportunities for students to have some degree of choice in their learning dependant on the content. Science and Mathematics processes and outcomes can appear open to interpretation for student choice, but these are assessed broadly across content strands and sub-strands (such as Chemical World in Science and Statistics and Probability in Mathematics). In Science and Mathematics it is often the content that restricts or speaks back to the outcomes as they all depend on the content or knowledge that they must be applied to; or outcomes must be demonstrated through learning about pre-determined concepts and organised content. See Appendix B for the full list of outcomes.

Objective Students: • Develop knowledge and understanding of and skills in applying the processes of Working Scientifically	
Stage 4 outcomes A student	**Stage 5 outcomes** A student:

SC4-4WS identifies questions and problems that can be tested or researched and makes predictions based on scientific knowledge	**SC5-4WS** develops questions or hypotheses to be investigated scientifically

The above Science outcomes could be used to assess the Student Research Project, for instance and therefore give students choice in their investigation in terms of the driving question or hypothesis they wish to test. However, the outcomes and content in the sub-strands do not offer this interpretive flexibility.

Mathematics processes are broken into three core strands throughout the syllabus – number and algebra; measurement and geometry; statistics and probability. In contrast to the Science strands, these Mathematics strands do have some outcomes and content that could appear to give students choice in the following ways:

- Allowing students to use different strategies or processes to draw conclusions and then justify why they used these to answer questions or solve problems. For example, sometimes they may be able to use different formulas or steps to solve a problem, although often these are already given to students.
- Offer students chances to inquire or explore mathematical concepts in scenarios or problems of their interests. For example, students could look at statistics or percentages in situations of their interest, such as sport or financial scenarios, to apply formulas from content.

An example from the Mathematics syllabus (NESA, 2019b, p.332) is provided below:

NUMBER AND ALGEBRA STAGE 5.1

FINANCIAL MATHEMATICS

OUTCOMES

A student:

- uses appropriate terminology, diagrams and symbols in mathematical contexts MA5.1-1WM
- selects and uses appropriate strategies to solve problems MA5.1-2WM
- provides reasoning to support conclusions that are appropriate to the context MA5.1-3WM
- solves financial problems involving earning, spending and investing money MA5.1-4NA

Related Life Skills outcomes: *MALS-12NA, MALS-13NA, MALS-14NA, MALS-15NA, MALS-16NA, MALS-17NA*

CONTENT

Students:

Solve problems involving earning money

- calculate earnings from wages for various time periods, given an hourly rate of pay, including penalty rates for overtime and special rates for Sundays and public holidays
  - use classifieds and online advertisements to compare pay rates and conditions for different positions (Problem Solving)
  - read and interpret examples of pay slips (Communicating)
- calculate earnings from non-wage sources, including commission and piecework

Nonetheless, as mentioned above, there are outcomes or content that may make designing learning around these degrees of choice unlikely. Examples of the content and outcomes will be provided in the next section to highlight this ongoing contradiction between the interpretive flexibility of processes, outcomes and content.

For English teachers, the outcomes that are to be assessed offer opportunities for choice depending on both the content requirements and nature of learning design. Taking one example below (NESA, 2019a, p.15), terms like 'responds' and 'composes' clearly could be done with elements of choice – such as students choosing what they respond to or what they compose as a response. Equally, the values of 'imaginative expression' and 'pleasure' imply that students have a degree of personal voice – in order to be expressive – and interest – in order to have pleasure – in the texts they study. However, as with the strands

and content options in the other KLAs, additional requirements in the syllabus restrict the enactment of choice in these processes. Text requirements, for example, manage the way such expression, pleasure and responding is achieved to meet syllabus requirements. When looking at the outcomes overall – see Appendix C for the full list – it should be clear that in terms of what students are to be assessed upon there is opportunity for choice depending on the design of the learning.

Stage 4 Outcome	Stage 5 Outcome
EN4-1A **responds** to and **composes** texts for understanding, interpretation, critical analysis, **imaginative expression** and **pleasure**	EN5-1A **responds** to and **composes** increasingly sophisticated and sustained texts for understanding, interpretation, critical analysis, **imaginative expression** and **pleasure**

The language used in the outcomes of English are like the skills assessed in Working Scientifically and Working Mathematically in that they could be interpreted broadly enough from a student choice perspective to be applied in a range of learning contexts. For English, this means the texts interacted with – whether responded to or composed by the student – are what will determine the degree of choice available to teachers.

3. Restricted Opportunities for Choice

Ultimately all the syllabi heavily restrict choice when we start to investigate the nature of the content or knowledge that teachers are required to teach. This is particularly obvious given in every syllabus under the 'Organisation of Content' section is the following statement:

> For Kindergarten to Year 10 courses of study and **educational programs are based on the outcomes of syllabuses**. The **content describes in more detail how the outcomes are to be interpreted and used**, and the intended learning appropriate for the stage. In considering the intended learning, **teachers will make decisions about the sequence**, the emphasis to be given to particular areas of content, and any adjustments required **based on the needs, interests and abilities of their students**.' (NESA, 2012, p.22; NESA, 2019a, p.20; NESA, 2019b, p.31; NESA, 2019c, p.22).

As is clear from the above, the expectation on teachers is that all education programs are based on syllabus outcomes, therefore what the goals are for students learning is pre-determined. The implication of this restrictive nature is further limited as the content essentially pre-determines how the outcomes are to be interpreted and used. Clearly there

is a reciprocal nature and intention that the outcomes and content are co-dependant and thus learning is heavily restricted within this framework. This is the significance of drawing reciprocal arrows in Figure 1 between processes, outcomes and content; alongside an underlying arrow from outcomes through content to teachers' decisions. Teachers learning design is anchored by the interplay between outcomes and content in this structure.
There is an underlying contradiction above that treats students as passive receivers of learning while implying a degree of choice in the final statement. Fundamentally it is teachers that **will make decisions** on all learning, but **based on the needs, interests and abilities of their students** with the assumption that the outcomes and content have given this interpretive flexibility or perfectly meet these needs, interests and abilities. For this reason, I've included some examples of the content requirements from each syllabus document below to illustrate the inflexibility of this relationship without needing an exhaustive list of examples.

Mathematics & Science

The content of the Mathematics and Science syllabi are precise and therefore restricts choice. The example below reflects what is a common prescriptive and inflexible series of content points found in many of the Mathematics strands, here from Angle Relationships in Stage 4 Measurement and Geometry (NESA, 2019b, p.315):

OUTCOMES

A student:

- communicates and connects mathematical ideas using appropriate terminology, diagrams and symbols MA4-1WM
- applies appropriate mathematical techniques to solve problems MA4-2WM
- recognises and explains mathematical relationships using reasoning MA4-3WM
- identifies and uses angle relationships, including those related to transversals on sets of parallel lines MA4-18MG

CONTENT

Students:

Use the language, notation and conventions of geometry

- define, label and name points, lines and intervals using capital letters
- label the vertex and arms of an angle with capital letters
- label and name angles using $\angle P$ or $\angle QPR$ notation
- use the common conventions to indicate right angles and equal angles on diagrams

Recognise the geometrical properties of angles at a point

- use the terms 'complementary' and 'supplementary' for angles adding to 90° and 180°, respectively, and the associated terms 'complement' and 'supplement'

Throughout these syllabi, the content is structured as follows:

A student:
Insert a pre-determined outcome

Students:
Insert a pre-determined outcome <u>OR</u> skill that is applied through pre-determined content or concepts

Students are regularly expected to replicate an action – even when they are expected to choose a strategy, it's predetermined what strategy (or group of strategies) are appropriate to meet the outcome. They are treated passively as they must 'use the common conventions to indicate right angles and equal angles on diagrams' (action) or 'recognise the geometrical properties of angles at a point' (action). Generally the degrees of interpretive flexibility depend on how specific this action becomes as students can apply it to scenarios they are familiar with, such as looking at the angles on stairs or their desk. However, in

Mathematics this can depend highly upon the strands and, as seen above, regularly offer minimal interpretive flexibility.

Science also follows this structure and has highly specified content that the outcomes are expected to apply to. The example below (NESA, 2019c, p.38) highlights how these outcomes are prescriptive with students' potential for choice only possible in terms of the scenarios or examples they may draw upon to apply and investigate scientific concepts like 'force' and 'motion'.

Physical World

Outcomes

A student:

- describes the action of unbalanced forces in everyday situations SC4-10PW
- discusses how scientific understanding and technological developments have contributed to finding solutions to problems involving energy transfers and transformations SC4-11PW

Related Life Skills outcomes: SCLS-10PW, SCLS-11PW, SCLS-12PW

Content

PW1 Change to an object's motion is caused by unbalanced forces acting on the object (ACSSU117)

Students:

a. identify changes that take place when particular forces are acting
b. predict the effect of unbalanced forces acting in everyday situations
c. describe some examples of technological developments that have contributed to finding solutions to reduce the impact of forces in everyday life, eg car safety equipment and footwear design
d. analyse some everyday common situations where friction operates to oppose motion and produce heat
e. investigate factors that influence the size and effect of frictional forces

They remain passive as each piece of content is scripted and their actions (the verbs - identify, predict, describe and so on) are expected to be replicated. Outside of the student research project, the Science outcomes and content all repeat this prescriptive progression of knowledge and skills that makes any authentic choice pushed aside as either unimportant or not necessary to improve in the outcomes of Science or Mathematics. The most choice that appears available for students in Mathematics or Science comes from teachers offering students opportunities to apply skills or investigate concepts (replicating the action) to a situation, problem or scenario of their choosing – whether something they are curious

about or an experience relatable to help their understanding of the outcome.

History

The same structure is evident in the History syllabus although it is perhaps more prescriptive overall than Maths and Science with much less room to give students choice in applying Historical processes to content. Outside of the few examples provided in the section on implied choice above, the outcomes, and particularly the content, are pre-determined and highly scripted. The example below (NESA, 2012, p.56) shows how the verbs used (outline, define, describe and explain) restrict the actions of students to finding answers (the content) expected from the syllabus.

OUTCOMES

A student:

- describes the nature of history and archaeology and explains their contribution to an understanding of the past HT4-1
- identifies the meaning, purpose and context of historical sources HT4-5
- uses evidence from sources to support historical narratives and explanations HT4-6
- locates, selects and organises information from sources to develop an historical inquiry HT4-8
- uses a range of historical terms and concepts when communicating an understanding of the past HT4-9
- selects and uses appropriate oral, written, visual and digital forms to communicate about the past HT4-10

Related Life Skills outcomes: *HTLS-1*, *HTLS-7*, *HTLS-8*, *HTLS-10*, *HTLS-11*, *HTLS-12*, *HTLS-13*

CONTENT

How historians and archaeologists investigate history, including excavation and archival research (ACDSEH001)

Students:

- outline the main features of history and archaeology
- outline the role of historians and archaeologists
- define the terms and concepts relating to historical time, including BC/AD, BCE/CE
- describe and explain the different approaches to historical investigation taken by archaeologists and historians

This is not to suggest this knowledge is unimportant, but as could also be seen from the earlier History example, even the topics that go beyond fundamental knowledge of the

discipline – such as who are historians and what do they do? – are prescriptive. For instance, the example from earlier restricted students by their:

Actions or Skills Assessed	Content or Knowledge Explored
identify, describe, explain, outline, discuss	**Population**: Asian societies **Time period**: After 1750 **Characteristics**: physical features, geography, role of leaders, features of economy, societal structure, religious beliefs and cultural features, lives of men, women and children.

English

The English curriculum implies the most potential for student choice given the language of the outcomes and the interpretive flexibility of the text requirements (the content – see example below). For instance, students could choose their own text that meets the various requirements – such as a film that is Australian and has everyday experiences of Asian and Aboriginal people – and write a response about it. The content – see example below (NESA, 2019a, p.23) – is reflected in the mandatory text requirements, which while offering a variety of options to choose from, are pre-determined with some privileged over others. The only major difference between Stage 4 and 5 is that students must study a Shakespearean text in Stage 5 and a variety of poetry drawn from different anthologies and/or a study of one or two poets.

CONTENT AND TEXT REQUIREMENTS FOR STAGE 4

Over Stage 4, students **must** read, listen to and view a variety of texts that are appropriate to their needs, interests and abilities. These texts become **increasingly sophisticated** as students move from Stage 3 to Stage 4 and from Stage 4 to Stage 5.

Students undertake the essential content and work towards course outcomes through close reading of, listening to or viewing the following:

Stage 4	
Fiction	at least two works
Poetry	a wide range of types of poems
Film	at least two works
Nonfiction	at least two works
Drama	at least two works

The following specifications may be fulfilled through the required types of texts outlined above and/or through other texts.

In **each Year** of Stage 4 students **must** study examples of:

- spoken texts
- print texts
- visual texts
- media, multimedia and digital texts.

Across the stage, the selection of texts **must** give students experience of:

- texts which are widely regarded as quality literature
- a widely defined Australian literature, including texts that give insights into Aboriginal experiences in Australia
- a wide range of literary texts from other countries and times, including poetry, drama scripts, prose fiction and picture books
- texts written about intercultural experiences
- texts that provide insights about the peoples and cultures of Asia
- everyday and workplace texts
- a wide range of cultural, social and gender perspectives, popular and youth cultures
- texts that include aspects of environmental and social sustainability
- nonfiction, picture books, graphic novels
- an appropriate range of digital texts, including film, media and multimedia.

In selecting specific texts for study in English, teachers should consider the needs, interests and abilities of their students and the ethos of the school and its local community.

Across the Stage requirements, there is clearly a contradicting degree of importance or accountability placed on giving students choice or opportunities to choose their learning. As can be seen across each stage, **must** has been used to stipulate a great deal of requirements that teachers must abide by - both in terms of the text types students must experience and the nature of the content in these texts. Meanwhile, teachers **should** *consider the needs, interests and abilities of their students*, thus relegating this collaborative approach to a recommendation or optional rather than mandatory. As such, while English appears to offer the most potential for student choice when considering the flexibility of the outcomes and

content, it is still not mandatory and students experiences of learning in the discipline is similarly pre-determined and restricted in opportunities for choice in what they are assessed on and the content they can explore.

Across all the syllabi even if there is choice mandated, teachers are routinely expected to assess the learning based on pre-determined outcomes, content or both. As such, opportunities for choice inherently become restricted as the outcomes and/or content effectively 'speak back' to the flexible, active language of the KLA processes, thus returning to treating students as passive receivers of the curriculum.

Syllabus as Default & Co-Curricular Planning only to help Access It

All syllabi contain the same introduction where teachers are called on to support the diversity of learners. Considering this, the language used in the introduction gives significant insight into syllabus writers' perspectives on the role of student choice in teaching and learning across the disciplines. To begin, the introduction states the following:

> '…the syllabus takes into account the diverse **needs** of all students. It **identifies essential knowledge**, understanding, **skills**, **values and attitudes**. **It outlines clear standards of what students are expected to know and be able to do** in K-10.'
>
> (NESA, 2012, p.4; NESA, 2019a, p.4; NESA, 2019b, p.3; NESA, 2019c, p.4)

The phrases in the introduction highlight the passive role students play in their learning. The syllabus acts as an active document that decides what students' 'needs' are, 'identifies essential knowledge… skills, values and attitudes' and 'outlines clear standards of what students are expected to know and be able to do'. In contrast, there is no room for students to define, decide, co-design, explore or adjust their learning to suit their goals, values or aspirations. Implicit within these statements is the assumption that the syllabus unquestionably meets all students needs and that the standards are necessarily relevant for all contexts and goals. Furthermore, they state:

> 'The [syllabus] **framework** also **provides** a set of **broad learning outcomes that summarise** the knowledge, understanding, skills, values and attitudes **essential for all students in all learning areas to succeed in and beyond their schooling**'
>
> By doing this, the curriculum sets two broad goals:

‘Goal 1: Australian schooling promotes **equity** and excellence

Goal 2: All young Australians become **successful** learners, confident and creative individuals, and **active and informed citizens**.'

(NESA, 2012, p.4; NESA, 2019a, p.4; NESA, 2019b, p.3; NESA, 2019c, p.4)

This is further presumed in the syllabus learning outcomes 'summarise… [what is] essential for all students in all learning areas to succeed in and beyond their schooling'. There are many assumptions being made in these core statements that contextualise the making of and purpose of syllabus documents:

1. That the learning outcomes summarised are essential for all students, in all learning areas, to succeed in and beyond their schooling.
2. That success in and beyond school can be defined or agreed upon for all students regardless of context.
3. That by setting these standards and outcomes equity will be achieved and students will become active and informed citizens.

Within these goals and assumptions are contradictory implications for student choice and drawing upon students' interests, needs and aspirations to inform teaching practice. While these goals appear admirable and aspirational, the passive roles of students in their learning makes it difficult to presume equity for all students

After these statements in the introduction are the following sub-sections, which I will address individually in the next sub-sections:

1. The Diversity of Learners
2. Students with Disabilities
3. Gifted and Talented Students

Considering the assumptions made above and the acknowledgement here that students are diverse in their interests, needs and aspirations, a syllabus with no room for choice that is prescriptive and pre-determined cannot meet all these goals. Arguably this would only be possible with an extensive list of more options and avenues for students learning or teachers teaching to adjust to their needs; or handing over some degree of choice to students so that their learning better aligns with these goals.

The Diversity of Learners

The underlying contradictions and assumptions above are further complicated in these sections and speak particularly to the implied perception that syllabus makers have on providing students with choice or agency in their learning. Despite the awareness of the diversity of learners, each syllabus states the following in this sub-section:

> 'NSW syllabuses are **inclusive of the learning needs of all students**. Syllabuses **accommodate teaching approaches that support student diversity**, including students with disability, gifted and talented students, and students learning'
>
> (NESA, 2012, p.4; NESA, 2019a, p.5; NESA, 2019b, p.3; NESA, 2019c, p.5)

Foundational to each document again is this phrase 'the learning needs of all students' - as if the multiplicity of needs can be easily defined for an individual, let alone the diversity of students across the NSW landscape. Furthermore, they 'accommodate teaching approaches' again reflects the passivity of students and the implication that syllabi must tacitly allow teachers to support students. In contrast, terms like goals and aspirations remain missing from these core purposes, while more active terms like collaborate, co-design, share, consult or work with are not used to support this diversity of learners. As we explore each sub-section of students, it becomes clear that the notion of collaborating with students to achieve learning goals is either done from a perspective of deficit – i.e., that students who can't access the syllabus can have some say in their learning only in order to better access the prescribed syllabus – or one of getting through the prescribed syllabus more quickly or spending more time on it.

Students with Disabilities

For students with disabilities, they appear to be given the most potential freedom for choice given they are most explicitly referred to as needing adjustments and likely in need of collaborative curriculum planning. However, this level of freedom is implicitly perceived as a deficit, in essence, teachers should give students some choice in their learning because they can't meet the level of the syllabus. Furthermore, this choice is always in reference to the syllabus as these adjustments are only made in order to access syllabus outcomes and content, see below:

> ‘**Adjustments** are measures or actions taken in relation to teaching, learning and assessment that **enable a student with disability to access syllabus outcomes and content and demonstrate achievement of outcomes**.’
>
> (NESA, 2012, p.4; NESA, 2019a, p.5; NESA, 2019b, p.3; NESA, 2019c, p.5)

The suggestions for how to adjust or differentiate teaching further emphasises this point of choice as appropriate within the bounds or in reference to the syllabus. Teachers are directed to draw on syllabus outcomes and content with adjustments to how they teach it; or considering the influence of the age and stage of the student’s learning in reference to the syllabus outcomes; or reliance on Life Skills outcomes as perhaps the last resort.

> **Students with disability can access outcomes and content from K–10 syllabuses** in a range of ways.
> Students may engage with:
> · **syllabus outcomes** and **content from their age-appropriate stage** with adjustments to teaching, learning and/or assessment activities; or
> · **selected syllabus outcomes** and **content** from their **age-appropriate stage, relevant to their learning needs**; or
> · **syllabus outcomes** from an **earlier Stage**, **using age-appropriate content**; or
> · selected **Years 7–10 Life Skills outcomes** and content from one or more syllabuses for students in Stages 4 and 5.
>
> (NESA, 2012, pp.4-5; NESA, 2019a, p.5; NESA, 2019b, pp.3-4; NESA, 2019c, p.5)

The most direct opportunity for student choice is made in the final paragraph in the context of collaborative curriculum planning. This is the only time we ever see the phrase *collaborative curriculum planning with the student* in any of the syllabus documents as it is never used in syllabus outcomes or content. Given the syllabus outcomes and content are the most mandatory elements of syllabus documents, it should also be noted that this practice *should be made* but does not have to be made by teachers.

> **Decisions regarding curriculum options, including adjustments, should be made in the context of collaborative curriculum planning with the student**, parent/carer and other significant individuals **to ensure that syllabus outcomes and content reflect the learning needs and priorities of individual students**.
>
> (NESA, 2012, p.5; NESA, 2019a, p.5; NESA, 2019b, p.4; NESA, 2019c, p.5)

Even though this paragraph is the most explicit opportunity for student choice in a more holistic perspective, it is only proposed as a solution for students who are perceived as incapable of accessing the syllabus in more mainstream ways. As such, it reiterates syllabus writers perspectives that not being able to access the syllabus makes a student somehow deficient, that the syllabus outcomes and contents themselves are unproblematic or perfect in meeting all students current and future needs, and that fundamentally students either could not or should not have a significant role in the planning of curriculum or their learning experiences in a more holistic sense – beginning with settings outcomes or goals through to the content they wish to explore, rather than an either/or proposition.

Gifted and Talented Students

The only other time where we see allusions to a collaborative learning process is seen when discussing gifted and talented (GAT) students. However, as with the adjustments above, they are always in reference to or dependent upon the outcomes and content of the curriculum.

> 'These **needs** should be addressed when planning appropriate teaching, learning and assessment activities
>
> Curriculum strategies… may include:
>
> differentiation: modifying the pace, level and content of teaching, learning and assessment activities
>
> acceleration: promoting a student to a level of study beyond their age group'
>
> (NESA, 2012, p.5; NESA, 2019a, p.5; NESA, 2019b, p.4; NESA, 2019c, p.6)

Differentiation, which ideally should be applied for all students, is highlighted here as a strategy to meet GAT students' needs and could offer opportunities for student choice. Although *modifying the pace, level and content of teaching, learning and assessment activities*, doesn't presume or state that it must be in consultation with students, mainly modified by teachers. Acceleration also doesn't presume students are given choice, although there is an opportunity here possibly when moving 'beyond their age group.'

School decisions about appropriate strategies are generally collaborative and involve teachers, parents/carers and students, **with reference to documents and advice available from NESA and the education sectors.**

Gifted and talented students may also benefit from **individual planning to determine the curriculum options**, as well as teaching, learning and assessment strategies, most suited to their needs and abilities.'

(NESA, 2012, p.5; NESA, 2019a, p.6; NESA, 2019b, p.4; NESA, 2019c, p.6)

As with the point on students with disabilities above, the offers for collaboration or choice come with the caveat 'with reference to documents and advice available from NESA and the education sectors'. While individual planning *may* be beneficial, ultimately, 'school decisions' are 'generally collaborative', which presumes that this is so without any real stipulation, accountability or mandate for them to be so. Again these practices appear to be encouraged or suggested without any strict monitoring or requirement, while adjustments are expected to be still pre-determined in many ways given the reliance on syllabus outcomes and content to decide on the direction and extent of students' learning.

Conclusion

This study aimed to reveal what are the opportunities and restrictions for students to lead their learning through greater choice within the Year 7-10 English, Science, Maths and History NSW syllabus documents? To explain this further it asked:

- How do syllabus documents frame and discuss the idea of student choice for NSW teachers?
- How much opportunity is there for student choice within and across these NSW syllabus documents?

Firstly, the evidence provided throughout this research has demonstrated significant contradictions in syllabus documents in relation to student choice. Investigating what opportunities and restrictions for student choice exist in Years 7-10 in nearly half of their

learning has revealed few authentic opportunities for student choice. Syllabus writers have framed the discourse of student choice to be used as a tool for non-mainstream students – whether students with disabilities or gifted and talented – to either access the outcomes and content of these syllabi or to accelerate through it. This perspective leaves all the syllabi as unproblematic documents, especially considering their assumptions in meeting all students needs and goals in and beyond schooling. However, as students are diverse in their interests, needs and aspirations, a syllabus with little room for choice that is prescriptive and pre-determined can't logically meet all these goals (Lindner & Schwab, 2020; te Riele, 2011; Plows, et al., 2017). Given the highly inactive role of students in determining their learning outcomes or interests, it also seems contradictory to presume students will be active citizens or that their needs will be met both in and beyond their schooling as are part of the stated goals across all the syllabi. Arguably this would only be possible with an extensive list of more options and avenues for students learning or teachers teaching to adjust to their needs; or handing over some degree of choice to students so that their learning better aligns with these goals.

Additionally, given the lack of active language used and the absence of terms like 'co-design' or 'students choose' there appears to be no focus on students' contributions, identities or aspirations as important for their learning. Since the language of outcomes and content themselves are all pre-determined and there is no space given to consider students as capable or able to set their own outcomes or content more broadly, the restrictions for choice are pervasive and opportunities highly limited. Across all the syllabi the language associated with student choice is almost always passive, with choice implied rather than mandated.

Secondly, the data revealed an inability to measure opportunities for choice because of this prescriptive and pre-determined nature, although the interpretive flexibility of the syllabi at least offered the ability to reveal that there are degrees of student choice throughout these documents. As the framework I've designed through Figure 1 revealed, within the spectrum of mandated to restricted student choice are the following ways teachers could offer students choice:

1. Allowing students to choose the content (knowledge, concepts or topics) of their learning.
2. Allowing students to choose how they present, demonstrate or show their understanding of the content.
3. Or hypothetically both, although given the contradiction between the language in the processes of KLAs and their outcomes, this appears to not really be an option at all.

Ultimately, these options for choice depend on the KLA, outcomes and content, with English offering the most interpretive flexibility. Fundamentally, this interpretation will depend on if teachers see student choice as important and can find ways to offer it within the few instances where this flexibility allows it. Furthermore, there are a multitude of other factors that this study could not explore, but clearly play a role in how likely there is to be student choice. The following are a list worth considering:

- Class timetabling and staffing (McGregor & Martin, 2012), for instance some schools may offer flexible timetabling to support student choice.
- Resources (Lindner & Schwab, 2020;), such as internet access and technology (Niemi, et al., 2018), which might help to hand the learning over to students through more student-chosen research topics (the content) and/or widen the options for how they might choose to present their understanding of a KLA outcome.
- Perspectives and pressures from other stakeholders, such as the influence of standardised assessments like NAPLAN and the Higher School Certificate on teachers' pedagogy and assessment practices (Spina, 2020; Klenowski & Carter, 2016; MacQueen et al., 2019)
- Time (Lindner & Schwab, 2020), something only mentioned in the syllabi's section on teaching students learning English as an additional language or dialect (EAL/D) who it states, 'require additional time and support' (NESA, 2012, p.6; NESA, 2019a, p.6; NESA, 2019b, p.5; NESA, 2019c, p.6). However, this acknowledgement of time as a factor in being able to differentiate for these students was not even mentioned in connection to the potential for student choice to help in this support.

For instance, the impact of time is likely significant given the vast difference in the volume of the outcomes and content in these stages that English (36 pages), Science (30 pages) and Mathematics (143 pages) are expected to cover in the same amount of hours (NESA, 2022).

These factors highlight the limitations of this study and provide avenues for future research. Given this research was limited to the policy documents themselves, it couldn't consider the influence of other policies – such as assessment and timing (as alluded to above) – that may have implications for student choice opportunities. Policies do not exist in a vacuum and CPA recognises policies as both texts and sitting in a broader policy ecosystem that can have even further implications for how policies are interpreted and enacted by different stakeholders. As such, future research should consider drawing upon other policy documents that may affect how these syllabi are enacted – for instance, exploring how student choice appears in Stage 6, which teachers may use to backward map their own teaching in these earlier years. Additionally, external pressures were not able to be explored that relate to this policy ecosystem, but likely have an influence. Anecdotally, as a teacher who has worked in the NSW secondary system and worked alongside principals and other leaders, the investment in My School (a publicly available website used to share data with parents on school demographics and results in standardised tests – like NAPLAN and the HSC) and pressures from media articles, parents and regional education directors can be a significant factor in how faculties and teachers interpret, plan and implement syllabus documents. These experiences and their need for investigation further validate the issues Howard (et al., 2021) and Bureau (et al., 2022) raised about systemic restrictions that prevent autonomy-support practices and highlights the importance of syllabus analysis as one worthwhile gap to explore ways to change systems for preventing controlling environments and enabling more agentic classrooms for both teachers and students.

To gain a deeper understanding of the opportunities for student choice and its impacts in classrooms, future research will need to consider these issues. This research could investigate student choice opportunities more holistically by exploring what student choice looks like in classrooms, what its effects are on stakeholders and the various perspectives – from students to teachers to parents, school leaders and policy writers – are on the phenomenon. Considering the improved access to the internet, an increasingly uncertain

future and common knowledge of the vast array of jobs current students will likely experience in their future lives (Niemi, et al., 2018; Jefferson & Anderson, 2017), there is both more capacity for student choice to be enabled in classrooms and arguably more evidence to encourage it to occur. Furthermore, the wealth of evidence on the benefits of student autonomy raised in the literature review suggest it should too. However, the language within these syllabi revealed a stark contrast to these arguments with an unquestionable faith in how well the outcomes and content in these documents can meet these likely immeasurable future realities in the present time for an already increasingly diverse and complex student cohort.

This complexity and diversity of students and their contexts is another factor that future research will need to consider if hoping to explore the implementation of student choice in classrooms. One of the stronger arguments for offering more student choice raised in the literature review is that it may be an avenue to better meet the needs of diverse student populations – whether culturally, socio-economically, in terms of abilities, gender or sexuality. How student choice may occur likely will differ significantly in different contexts – such as regional to urban, monocultural to multicultural student populations and so on – based on both their diversity and the environmental nuances mentioned above, like staffing and resources. This is not to mention the differences that occur in education sectors, whether religious, independent or government. While these syllabi are used in most schools in NSW, this study could not account for other syllabus options that already exist in the different sectors nor the variations in how much of the syllabus schools may access – for instance, some may offer electives in these years that build from Science or Mathematics that offer far more student choice than the 'mainstream' syllabi I've investigated here.

As this research was conducted over a one semester timeline, it was not possible to obtain ethics approval and therefore data was limited to publicly available documents. While this allowed the documents themselves to be analysed, the perspective and intentions of the syllabus writers cannot be captured. This raises an overlooked gap in research in regard to syllabus writers themselves. The process for writing syllabi involves extensive consultation with various stakeholders, yet there is a serious gap in investigating who these syllabus writers are, their backgrounds and biases, as well as their perspectives given their power in

the education system in contrast to their anonymity. These documents indicate NESA (the NSW Education Standards Authority) as the author, publisher and authoriser of the syllabus, but individual writers remain invisible on the document and website itself. Considering the imbalance of power between syllabus writers, school leaders, teachers and students, investigating the authors themselves could be a worthwhile study given the many assumptions made in these documents and the disempowering language it contains for teachers and students to experience.

In the broader context of school leadership, student choice and this study raises significant questions and considerations for future research. Syllabus documents clearly represent a systemic power that influences schools and leaders in significant decision-making from resourcing through to classroom practice and learning. As Figure 1 demonstrated, they are a powerful accountability mechanism that can effectively lead and limit what pedagogical options teachers have and therefore the learning students experience. This top-down pressure is reminiscent of dated educational leadership theories, while student choice contrasts this model to change the relationship between teachers and students.

This research aimed to offer a counterpoint reflecting more current educational leadership theory, emphasising a bottom-up approach, whereby leaders seek to enable teachers and students to meet the needs of their contexts (Leithwood, et al., 2020). Furthermore, it challenges this relationship at a deeper level, raising questions about who truly leads learning in a classroom, the teacher, the student or the syllabus? Evidently, the syllabi's prescriptive nature and lack of interpretive flexibility would suggest it significantly leads the learning in this relationship. In highlighting this controlling dynamic, it validates Howard (et al., 2021) and Bureau's (et al., 2022) concerns that systemic control can make autonomy support improbable and student choice not an option. Given the future uncertainties in and beyond schools and the changed relationship between teachers and students considering the increased accessibility of the internet and knowledge (Niemi, et al., 2018), this passive role is not only outdated, but ignores the realities in classrooms. Students routinely make choices to align with the syllabus or not (Graham, et al., 2015; McGregor & Mills, 2012; te Riele, 2011). This is evident by the non-linear and complex lives we know students lead into

adulthood and by the vast differences in results from the standardised tests often used to measure the success of school systems, leaders and syllabus design.

Ultimately, this research has highlighted a significant gap in how issues of autonomy, motivation, engagement and learning are written into syllabus documents. Furthermore, it demonstrates the power of language used in these spaces in order to consider ways that flexibility may be embedded in future to better meet the needs of diverse student populations.

Appendices

Appendix A

The History curriculum outcomes or skills to be assessed. (NESA, 2012, p.14)

STAGES 4 AND 5

TABLE OF OBJECTIVES AND OUTCOMES

Objectives Students: • develop knowledge and understanding of the nature of history and significant changes and developments from the past, the modern world and Australia • develop knowledge and understanding of ideas, movements, people and events that shaped past civilisations, the modern world and Australia.	
Stage 4 outcomes A student:	**Stage 5 outcomes** A student:
HT4-1 describes the nature of history and archaeology and explains their contribution to an understanding of the past	HT5-1 explains and assesses the historical forces and factors that shaped the modern world and Australia
HT4-2 describes major periods of historical time and sequences events, people and societies from the past	HT5-2 sequences and explains the significant patterns of continuity and change in the development of the modern world and Australia
HT4-3 describes and assesses the motives and actions of past individuals and groups in the context of past societies	HT5-3 explains and analyses the motives and actions of past individuals and groups in the historical contexts that shaped the modern world and Australia
HT4-4 describes and explains the causes and effects of events and developments of past societies over time	HT5-4 explains and analyses the causes and effects of events and developments in the modern world and Australia
Objectives Students: • develop skills to undertake the process of historical inquiry.	
Stage 4 outcomes A student:	**Stage 5 outcomes** A student:
HT4-5 identifies the meaning, purpose and context of historical sources	HT5-5 identifies and evaluates the usefulness of sources in the historical inquiry process
HT4-6 uses evidence from sources to support historical narratives and explanations	HT5-6 uses relevant evidence from sources to support historical narratives, explanations and analyses of the modern world and Australia
HT4-7 identifies and describes different contexts, perspectives and interpretations of the past	HT5-7 explains different contexts, perspectives and interpretations of the modern world and Australia
HT4-8 locates, selects and organises information from sources to develop an historical inquiry	HT5-8 selects and analyses a range of historical sources to locate information relevant to an historical inquiry

Appendix B

The Working Scientifically outcomes or skills to be assessed in Science. (NESA, 2019c, p.15)

Skills

Objective

Students:

- develop knowledge, understanding of and skills in applying the processes of Working Scientifically

Stage 4 outcomes A student:	**Stage 5 outcomes** A student:
SC4-4WS identifies questions and problems that can be tested or researched and makes predictions based on scientific knowledge	SC5-4WS develops questions or hypotheses to be investigated scientifically
SC4-5WS collaboratively and individually produces a plan to investigate questions and problems	SC5-5WS produces a plan to investigate identified questions, hypotheses or problems, individually and collaboratively
SC4-6WS follows a sequence of instructions to safely undertake a range of investigation types, collaboratively and individually	SC5-6WS undertakes first-hand investigations to collect valid and reliable data and information, individually and collaboratively
SC4-7WS processes and analyses data from a first-hand investigation and secondary sources to identify trends, patterns and relationships, and draw conclusions	SC5-7WS processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions
SC4-8WS selects and uses appropriate strategies, understanding and skills to produce creative and plausible solutions to identified problems	SC5-8WS applies scientific understanding and critical thinking skills to suggest possible solutions to identified problems
SC4-9WS presents science ideas, findings and information to a given audience using appropriate scientific language, text types and representations	SC5-9WS presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations

Appendix C

English curriculum outcomes (NESA, 2019a, p.15).

Objectives: Through responding to and composing a wide range of texts and through the close study of texts, students will develop knowledge, understanding and skills in order to:	**Stage 3 outcomes** **A student:**	**Stage 4 outcomes** **A student:**	**Stage 5 outcomes** **A student:**
A *communicate through speaking, listening, reading, writing, viewing and representing**	EN3-1A communicates effectively for a variety of audiences and purposes using increasingly challenging topics, ideas, issues and language forms and features	EN4-1A responds to and composes texts for understanding, interpretation, critical analysis, imaginative expression and pleasure	EN5-1A responds to and composes increasingly sophisticated and sustained texts for understanding, interpretation, critical analysis, imaginative expression and pleasure
	EN3-2A composes, edits and presents well-structured and coherent texts	EN4-2A effectively uses a widening range of processes, skills, strategies and knowledge for responding to and composing texts in different media and technologies	EN5-2A effectively uses and critically assesses a wide range of processes, skills, strategies and knowledge for responding to and composing a wide range of texts in different media and technologies
	EN3-3A uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies		
	EN3-4A draws on appropriate strategies to accurately spell familiar and unfamiliar words when composing texts		
B *use language to shape and make meaning according to purpose, audience and context*	EN3-5B discusses how language is used to achieve a widening range of purposes for a widening range of audiences and contexts	EN4-3B uses and describes language forms, features and structures of texts appropriate to a range of purposes, audiences and contexts	EN5-3B selects and uses language forms, features and structures of texts appropriate to a range of purposes, audiences and contexts, describing and explaining their effects on meaning
	EN3-6B uses knowledge of sentence structure, grammar, punctuation and vocabulary to respond to and compose clear and cohesive texts in different media and technologies	EN4-4B makes effective language choices to creatively shape meaning with accuracy, clarity and coherence	EN5-4B effectively transfers knowledge, skills and understanding of language concepts into new and different contexts
C *think in ways that are imaginative, creative, interpretive and critical*	EN3-7C thinks imaginatively, creatively, interpretively and critically about information and ideas and identifies connections between texts when responding to and composing texts	EN4-5C thinks imaginatively, creatively, interpretively and critically about information, ideas and arguments to respond to and compose texts	EN5-5C thinks imaginatively, creatively, interpretively and critically about information and increasingly complex ideas and arguments to respond to and compose texts in a range of contexts
		EN4-6C identifies and explains connections between and among texts	EN5-6C investigates the relationships between and among texts
D *express themselves and their relationships with others and their world*	EN3-8D identifies and considers how different viewpoints of their world, including aspects of culture, are represented in texts	EN4-7D demonstrates understanding of how texts can express aspects of their broadening world and their relationships within it	EN5-7D understands and evaluates the diverse ways texts can represent personal and public worlds
		EN4-8D identifies, considers and appreciates cultural expression in texts	EN5-8D questions, challenges and evaluates cultural assumptions in texts and their effects on meaning
E *learn and reflect on their learning through their study of English*	EN3-9E recognises, reflects on and assesses their strengths as a learner	EN4-9E uses, reflects on and assesses their individual and collaborative skills for learning	EN5-9E purposefully reflects on, assesses and adapts their individual and collaborative skills with increasing independence and effectiveness

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