TAKING CHARGE: DEVELOPING SELF-EFFICACY IN GRADE 8 BOYS THROUGH A SELF-DETERMINED AND PROJECT-BASED LEARNING PROGRAMME

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Abstract

This action research project investigated how participation in a self-determined learning programme could develop self-efficacy in Grade 8 boys. Self-efficacy is having the belief that one can alter one's life towards a desired outcome. Such beliefs are powerful determinants in the decisions people make and the environments they choose, and are, furthermore, key in developing agency. As part of St Stithians Boys' College's project-based learning programme, the 27 boys in my class undertook a project entitled, "Take Charge." Over a three-week period, each boy was given the opportunity to deliberately and consciously teach themselves a new skill. To direct their own learning, the boys were given much choice throughout the project: within parameters they were allowed to choose the skill they wanted to learn, carefully set their own achievement milestone, identify their own learning resources and strategies, and control how they used the majority of their lesson time. In a mixed-methods research design, data were collected by means of a pre-test/post-test survey which included a self-efficacy scale; exit tickets; written reflections; individual and focus-group interviews; and my teacher observation journal. The data were analysed by means of inductive analysis and polyangulation. Analysis indicated that participation in the Take Charge project did strengthen the boys' self-efficacy beliefs. Furthermore, it highlighted that giving the boys choice in their learning promoted motivation, and that mastery experiences in particular had a positive impact on the boys' efficacy beliefs. As such, in future, I will strive to include more opportunities for my boys to have voice and choice in their learning, and create more possibilities for them to have mastery experiences of topics and skills they learn at school.

Introduction

People who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious. They produce their own future, rather than simply foretell it. (Bandura, 1986, p. 395).

Agency is having the desire and ability to take action to produce a desired result. It is a significant skill to develop in boys in order to allow them to be (and feel) in control of their lives and to equip them to reach their goals. In developing agency, it is crucial to examine self-efficacy beliefs. Such beliefs, namely an individual's view of their ability to achieve aspirations, strongly influence their agency to actively work towards achieving them (Bandura, 2008).

It was against this backdrop, that I developed a learning programme for my Grade 8s that aimed to enhance their self-efficacy beliefs. In doing so, I drew on the instructional strategy of heutagogy, a form of self-determined learning, which promotes students who are highly autonomous. A heutagogical approach fosters students' ability to teach themselves — the student, and not the teacher, is the major agent in the learning process. The wealth of information that is readily available online is a key aspect that allows a heutagogical approach to succeed.

My research thus became a study of the learning programme I developed, which was called "Take Charge." For this project, which formed part of our Grade 8 project-based learning programme, each boy was given the task of teaching themselves a self-selected skill using only online resources. The project aimed to develop self-efficacy by each boy mastering his skill in different ways: first, by being able to perform his skill independently, and secondly, by being able to teach his skill to others. I hoped that these mastery experiences would have a positive impact on the boys' belief that they could independently affect further self-development in the future. My action research project thus aimed to answer the research question: "How does participating in a heutagogic learning experience develop self-efficacy in Grade 8 boys?"

Giving the boys multiple opportunities to exercise choice during the project was a key part of its design. It aimed to allow them to own their learning process and to earn their mastery independently. As such, the skill each boy chose was of lesser importance than the act of consciously learning it by their own effort. This ability to learn independently is crucial in the rapidly changing world of the 21st century. As Toffler predicted in 1970, "tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn" (p.414).

Action research proved an ideal methodology to investigate my research question. It allowed me to examine the effects of my practice by analysing the boys' reactions, behaviour, and feedback that occurred in response to the Take Charge project. Their choices and voices provided honest and authentic data on the success of the project design as a whole. Importantly, it allowed me to collate my observations with their responses, which led to an authentic and pragmatic answer to my research question.

Literature Review

Agency is having the ability and inclination to take an active role in making purposeful choices and decisions in determining one's future. Having high levels of agency allows individuals to be "contributors to their life circumstance, not just products of them" (Bandura. 2008, p.167). Promoting agency in students is achievable and has increasingly been seen as crucial in schools (Ferguson, et al., 2018; Silver & Stafford, 2017; Vaughn, 2018). Vaughn (2018) notes that in developing student agency, teachers need to help their students to become independent learners. This involves giving students the opportunity to reflect on what they have learned, as well as to consider what has proven easily achievable, what has proven difficult, and why. Furthermore, Vaughn suggests that teachers need to create classroom spaces that allow students to make meaningful decisions about their learning. Similarly, Baroutsis et al. (2016) argue that allowing students choice and including students' interests in the curriculum contribute to student ownership, which provides opportunity for the development of agency.

Beyond these practical techniques that teachers can apply to develop agency, Bandura (2008) describes the workings of agency as follows:

> Among the mechanisms of agency none is more central or pervasive than beliefs of personal efficacy. This core belief is the foundation of human motivation, well-being, and accomplishments. Unless people believe they can produce desired effects by their actions they have little incentive to act or to persevere in the face of difficulties. Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to effect changes by one's actions. (p. 167)

Personal efficacy, or self-efficacy, describes an individual's belief that their actions have the ability to influence their life. These self-efficacy beliefs are thus foundational to the actions associated with agency. Bandura (2008) writes that self-efficacy beliefs influence how people view opportunities and obstacles, affect emotional well-being, and influence important life decisions. In short, they can strongly influence the course of a life as they guide activities and environments chosen by an individual.

In the literature, two types of self-efficacy are discussed: general self-efficacy and domain-specific self-efficacy. General self-efficacy is described as a global trait based on one's broad perception of personal potential for mastery and future success. Conversely, domain-specific self-efficacy describes beliefs of personal efficacy in a particular context (Komarraju, et al., 2017).

Self-efficacy can be promoted in four ways (Bandura, 2008). Firstly, and most effectively, strong self-efficacy can be developed by mastery experiences. The success associated with a mastery experience often contributes to further success, and thus, even stronger self-efficacy beliefs. However, as much as mastery experiences can build self-efficacy, failures can diminish it. If mastery experiences have historically come too easily, failure can be especially crippling. In order to build resilient efficacy, one needs to overcome difficulties through perseverance and learn to manage failure.

A second means of developing self-efficacy is by social modeling. As Bandura writes, "seeing people similar to oneself succeed by perseverant effort raises observers' beliefs in their own abilities" (p. 168). This method of building self-efficacy is gaining prominence in the age of social media. Thirdly, one can promote self-efficacy by social persuasion. This is concerned with gaining greater self-belief by communicating with an encouraging persuader. Such interactions often lead to greater efforts which, in turn, increase the probability of success. Persuaders should encourage success via self-improvement rather than by comparison to others and help arrange circumstances so that the persuadee is not placed in a situation too early in which they are likely to fail. Bandura highlights that "[p]ep talks without enabling guidance achieve little" (p. 168). Lastly, mood and physical state affect self-efficacy beliefs. Improving one's mood by, for example, reducing anxiety or building physical strength, can improve self-efficacy beliefs. It is thus possible to develop perceived self-efficacy which can, in turn, affect levels of agency.

The far-reaching effects of the internet and other technological advancements of the past 20 years have allowed students to take far greater control of their own learning than ever before. As Bandura (2006a) describes, this "shift in the locus of initiative requires a major reorientation in students' conception of education. They are agents of their own learning, not just recipients of information. Education for self-directedness is now vital for a productive and innovative society" (p. 176). Blaschke and Hase (2016) agree with Bandura's view, arguing that in the current information age, barriers to knowing have been removed and the 21st century student has had to become an analyzer and synthesizer, rather than a passive receiver of knowledge.

Heutagogy, similar to self-determined learning, answers these shifts and is a student-centred instructional strategy, with the key principles of "learner agency, self-efficacy and capability, reflection and metacognition, and non-linear learning" (Blaschke & Hase, 2019, p. 1), which is enhanced by

technological possibility. Learner agency is at the heart of heutagogic learning and students are encouraged to "take responsibility for the learning design and pathway, while instructors facilitate learning and encourage learner action and experience in a supportive, non-threatening environment" (Hase & Kenyon as cited in Blaschke & Hase, 2019, p. 2). Further characteristics of heutagogy include reflection and the notion of "capability," where the learner is able to demonstrate competency in an unfamiliar context. Blaschke and Hase (2019) summarise the approach as follows:

> Ultimately, heutagogy posits that giving responsibility of the learning process to the learner (learner agency) has the effect of encouraging development of learner self-efficacy and capability, as well as cognitive and metacognitive skills such as critical thinking and reflection – with the underlying goal of developing reflective practitioners and autonomous lifelong learners. (p. 3)

Another instructional strategy that aims to prepare students for the 21st century is project-based learning (PBL). Here, students learn by completing an authentic project that requires sustained enquiry and culminates with a public product. Similar to heutagogy, although to a lesser degree, PBL emphasises placing the student at the core of the learning process, with the teacher acting as a facilitator. Furthermore, PBL also highlights the importance and value of reflection and student voice and choice (Larmer, et al., 2015). With their similarities, PBL and heutagogy can work together to allow for the creation of a learning programme designed deliberately for boys. In this regard, Reichert and Hawley (2010) report that "the vigorous creation of products [is] especially effective with boys" (p. 17). Additionally, they detail that many lessons in their research that were especially effective for boys involved open-ended problems that allowed the boys to determine a solution based on their own inquiry. They highlight that allowing boys to "figure it out themselves" (p. 116) boosts confidence and creates pride in their work.

In conclusion, the literature indicates that student agency is a vital skill for students to develop, particularly in terms of taking ownership of their own learning in the 21st century. Student voice and choice, and, most importantly, their self-efficacy beliefs can enhance levels of student agency. Self-efficacy beliefs can be deliberately promoted through a variety of strategies. Creating a learning experience that draws on the theory of self-efficacy and the pedagogies of heutagogy and PBL appears to be a promising means of developing self-efficacy in boys, thus enhancing their ability to be agents in their learning.

Research Context

St Stithians Boys' College is an independent, Methodist boys' high school in Johannesburg, South Africa. Approximately 750 boys are enrolled from Grades 8 to 12. The school aims to provide a holistic

education for boys, developing their ability in seven pillars, namely academics, sport, culture, outdoor education, spirituality, community service, and leadership. Our boys are generally from affluent homes and form a diverse student body of numerous cultural backgrounds from within South Africa and our neighbouring countries. The 27 boys who participated in my action research project were all from the Grade 8 class that I taught for project-based learning. The project took place in November at the end of our academic year. I was also the class's Mathematics teacher, which meant that I had taught them for a substantial amount of time that year before embarking on the Take Charge project and had already established many meaningful relationships with the boys in the class. The Take Charge project formed part of our Grade 8 "Activ8" programme, which aims to prepare our boys for life in the 4th Industrial Revolution by engaging them in topical project-based research and learning tasks. Parents gave permission for their sons to be part of the research and the boys were allowed to leave the research programme if they desired. The boys and their parents were assured that the boys' identities would be kept anonymous in reporting on the action research project.

The Action

The Take Charge programme was designed to allow Grade 8 boys to consciously and independently teach themselves a new skill. The intervention took place during 24 lessons (45 - 60 minutes each) over a three-week period, culminating in a public exhibition event. The boys were given much choice in selecting their skill. However, it had to fall within one of the College's seven pillars (academics, sport, culture, outdoor education, spirituality, community service, leadership) or an additional option of "life skills" and had to be approved by me, based on their rationale. Their chosen selection of skills was broad and included beginning to learn a new language, playing a song on a new instrument, speed typing, making a flip book, picking a lock, learning to knit, and how to solve a Rubik's cube. A key aspect of the programme was that each boy was working on an individual and unique project within a group setting. Instead of teaching one class of 27, I was facilitating 27 individual projects. In order to help manage this, I used a project website as well as Google Classroom. Once each boy had chosen his skill, he had to set an achievement milestone against which he would measure his mastery. As the boys worked through the project, they first needed to document their learning and provide video proof of them mastering their skill. Next, they had to create a YouTube-style tutorial to teach their skill. They then taught a classmate their skill and learnt a skill in return. Finally, Grade 7 boys from our Boys' Preparatory attended a public exhibition event where my Grade 8s presented their skill and shared their learning experiences.

The project design was strongly influenced by Bandura's (2008) work on how to promote self-efficacy, as well as the concept of heutagogy (Blaschke & Hase, 2016). To develop self-efficacy, I particularly drew

on the ideas of mastery experiences, social modeling, and social persuasion. Multiple opportunities for mastery experiences were included in the project (video proof of mastering the skill, teaching video, teaching a classmate, the public exhibition event). I also allowed for social modeling by introducing the boys to a YouTube personality (Mike Boyd) who challenges himself to learn new skills and documents his learning process on his YouTube channel. Additionally, as the boys were using online tools to teach themselves, they experienced further social modeling by watching online teachers succeed at the skill. Lastly, for social persuasion, I interacted daily with each boy and discussed how their project was going, giving advice in the style that Bandura suggests. Key aspects of heutagogy that influenced the project design included its learner-centredness, pushing boys not only to master their skill but to be able to teach it (showing competency in different contexts), and actively including opportunities for the boys to reflect on their learning process.

Data Collection

Action research in education is a methodical exploration by a teacher into their own practice, considering both their actions and the elicited student responses. This is done by analysing data generated by the students, and observations and reflection by the teacher (Mertler, 2017). Action research is a particularly fitting methodology when investigating "boy voice and choice." Beyond boys having voice and choice in the research action itself, considering their responses as essential data emphasises the importance of their feedback (their voice and choice) in evaluating a teaching intervention.

With this in mind, I chose to foreground data collected from the boys in this research project. My observations and reflections served to enhance their voice. I used a mixed-methods research design as I wanted to gather both qualitative and quantitative data to allow for rich analysis. These data, collected from the boys and me, enabled "polyangulation" (Mertler, 2017, p. 11); the process of integrating data from various sources. This added to the rigour and credibility of my research findings by providing a comprehensive exploration of my research question.

Quantitative data were gathered by means of a survey that included a Likert-type self-efficacy scale. Here, the boys rated the strength of their perceived ability to tackle various provided scenarios. The self-efficacy scale was created by combining and adapting elements of Bandura's "Children's Self-Efficacy Scale" (2006b), which measures domain-specific self-efficacy, with Schwarzer and Jerusalem's "General Self-Efficacy Scale" (1995). This allowed for data on both general self-efficacy and domain-specific self-efficacy to be collected. The survey was used in a pre-test/post-test design, employed both before and after the action had taken place. It also included a selection of qualitative, open-ended questions alongside the numeric self-efficacy scale to allow the boys to provide more personal responses.

Qualitative data were collected from the boys themselves, from my observations of them, as well as through a teacher journal. As self-efficacy is a personal belief, gathering data directly and frequently from the boys (their voice) was paramount in analysing the impact of my action. I therefore gathered written work in the form of exit tickets and reflection exercises throughout the research project. Additionally, I conducted one-on-one semi-structured interviews and a semi-structured focus group interview. While the boys were engaging in the action, I conducted semi-structured observations of the classroom and documented impromptu conversations I undertook with individual boys. Lastly, I kept a daily journal to aid in documenting my reflective teaching throughout the project.

Data Analysis

When analysing the data, I began by collating the quantitative data collected through the pre-test/post-test survey. Next, I interrogated the qualitative data by means of inductive analysis using Mertler's (2017) suggested technique of "organisation, description, and interpretation" (p. 173). To do this, I developed a coding scheme to create categories for my data, which I then linked back to my research question. Finally, I compared the findings of my quantitative and qualitative data in a process of polyangulation to examine how the data complemented each other and enhanced my understanding.

Discussion of Findings

After analysing the various data sources, three themes emerged that aided my investigation into how participation in a heutagogic learning experience can develop self-efficacy in Grade 8 boys.

Affecting Self-Efficacy

The pre-test/post-test results revealed that after having completed the project the boys' self-efficacy levels increased. On average, the boys' general self-efficacy score increased by 6%. This indicates that as a global trait, the boys' overall self-efficacy benefited. In terms of domain-specific self-efficacy, the results indicated an average increase in self-efficacy of 8% in "enlisting social resources" and a 7% increase in "self-regulated learning." There was also a 3% average increase in "leisure time skills and extracurricular activities," while self-efficacy scores for "academic achievement," "meeting others' expectations," and "self-regulation" remained relatively constant.

Bandura (2006b) argues that "one cannot be all things, which would require mastery of every realm of human life" (p. 307), but that developing self-efficacy in particular domains is well possible. Additionally, he posits that "powerful mastery experiences that provide striking testimony to one's capacity to effect personal changes can produce a transformational restructuring of efficacy beliefs that is manifested across diverse realms" (p. 308). It thus appears that the project particularly developed self-

efficacy in the domains of enlisting social resources and self-regulated learning, but, additionally, that the overall mastery experience of autodidactically learning and teaching a new skill benefited the boys' general self-efficacy.

This development of self-efficacy was corroborated by various other data sources. In an exit ticket, all 27 boys stated that having learnt a new skill independently made them feel more confident to learn further skills on their own. Boy IX explained that this was because having successfully done so once "makes you feel that self-learning can be done" and Boy VII stated that he "now knows that [he] can do it." In a focus group interview after the project, Boy XXV described his experience of individually tackling a new skill: "I feel like I learnt it actually doesn't take too long to learn a new skill. When I started I thought, "this is going to take weeks, I'm going to have to practise for hours at a time," but I realised that if you actually just put your mind to it and work smartly, not really quite hard, then you can actually achieve it quite easily."

As the teacher in the room, it was clear that when boys had really worked hard to master their skill, their self-efficacy and also agency to do so in the future clearly increased. This was summarised by one such boy (Boy XXI) who noted, "I feel like when you achieve mastering one skill you want to keep on going and try do another skill." Both the qualitative and quantitative data thus indicated that undertaking this type of project can develop self-efficacy in Grade 8 boys.

The Power of Mastery Experiences

Due to Bandura's (2008, 2006b) emphasis on the potential wide-ranging impact of mastery experiences on promoting self-efficacy, I had deliberately built various potential mastery experiences into my project design. Each boy had to create a video of himself mastering his skill, create a tutorial teaching his skill, teach his skill to a classmate in person, and show his work to Grade 7s from our Boys' Preparatory in an exhibition event.

When describing the project as a whole, Boy XIX's response illustrated that his overall mastery experience had significantly impacted his self-belief: "[This project] made me more confident in learning new things. Because before maybe I'd think, "oh no, I'm not going to be able to finish this," or, "it's going to take too long but now that I've done it in three weeks, then you feel like you can do it." In the exit tickets, 26 of 27 boys stated that making a teaching video made them more confident about their skill, with Boy VIII writing that "it helps you understand your skill better," and Boy XXV explaining that it made him realise "how much [he] actually know[s]." These two responses sum up the benefit experienced by many boys as a result of teaching their skill: it had the dual effect of creating a sense of accomplishment and deepening their levels of understanding. As Boy IX explained in a focus group

interview, "I didn't really enjoy teaching someone [in person] but it benefitted my actual *real* mastery of the skill," while Boy XXV reflected that, "if you're teaching someone and they're looking at it from a different perspective then you can look at things you've never really seen before and figure out why you were doing it right." The boys' consistent positive responses to the mastery experiences have made me critically analyse my day-to-day teaching regarding whether I create enough opportunities for my boys to demonstrate their mastery of academic content.

Learning by Choice

Giving the boys extensive choice in this project was a key part of its design. Within parameters, the boys were allowed to choose their own skill, set their own achievement milestone, had to find their own learning resources and strategies, and controlled how they used most of their lesson time.

Having choice in selecting their skill impacted the boys' motivation. In the exit tickets, 21 of the 27 boys stated that choosing their skills increased their motivation to learn it. In a focus group interview, Boy XIX explained that "if you [the teacher] had chosen [our skill] for us maybe it's not something we really like then we wouldn't have the motivation to complete it but when we chose it obviously we chose something we wanted to do and that gave us the motivation to finish." Boy XXV added that having choice increased the boys' ownership of the work as they "were doing it for [them]selves." After interpreting such data, I concluded that "boy choice" played a notable role in allowing the potential mastery opportunities to materialise. Choice thus played an important role in helping to develop self-efficacy, and ultimately, greater agency in my boys to independently learn new skills.

In a focus group interview it became clear that there were, however, diverse responses to having so much choice. Boy XXVII did not like the pressure of being responsible for himself. He explained that:

> If you get off task in like a [traditional] class environment when you're learning and ... you go off task, you'll be quickly brought back in a way. In this project we would get off task and we would not be brought back to it and we'd be talking to everyone else and be minding our own business.

In further discussion, it became clear that he did not like the freedom of choice and preferred stricter guidance. In general, giving the boys so much choice did make it very clear for me to observe (much clearer than in a traditional, teacher-centred classroom) which boys were on task and taking their work seriously, and which boys were not. This allowed me to intervene where I was needed most. It also highlighted some excellent self-regulatory activity. For example, when Boy XXI finally achieved his milestone after hours of effort, he went to socialise with his friends for ten minutes before independently returning to work on the video he needed to submit. To Boy VIII, having choice allowed him to be the

driver of his own learning, which contributed to his feeling of success. He stated: "I really enjoyed it because we actually got to teach *ourselves* something … it's nice struggling to actually achieve something by yourself without people telling you what to do."

A final observation was that although the boys had significant choice within this project, it remained a compulsory school task. This appeared to help the boys ascertain that they were more capable of independently mastering a skill than they had realised. Boy IX shared the following: "I felt satisfaction [from doing the project] because I felt that if you'd actually tried this in your free time you'd have started and you would have been lazy to actually continue with it. So it actually gave you the confidence that you actually can learn a skill when you actually have to do it." Boy I felt similarly, stating that, "I felt pleased with myself because I learnt something that I haven't learnt before and I didn't think it would be possible to learn - I was just lazy. Now that I put my mind to it, it was actually quite easy."

Conclusion

Giving my Grade 8 boys the opportunity to teach themselves a new skill independently within a heutagogic, project-based class environment developed their self-efficacy beliefs. Allowing the boys the opportunity to have mastery experiences — being able to demonstrate and feel comprehensive proficiency in a skill or topic — was powerful and created the belief that they could (and wanted to) do more. It also become clear that giving the boys choice in their learning was generally intrinsically motivating, contributing to their staying power to get a task done, and thus directly enabling such mastery experiences to take shape. In the aim to develop agency through self-efficacy, I would thus recommend undertaking such a project with Grade 8 boys.

Having designed and observed the boys' responses to the Take Charge project has indicated to me that boys at my school need more mastery experience opportunities in their learning. Without them, many boys most likely do not experience boosts in the self-efficacy beliefs that they desperately need in their daily academic work. I look forward to taking this new personal realisation and applying it in my Mathematics classroom (beyond our project-based learning programme). In particular, this action research has made me realise that ending learning cycles with only a summative assessment most likely does not advance self-efficacy beliefs and agency for most boys. I hope to continue my research by adding a secondary assessment at the end of a learning cycle that is designed to show mastery, rather than test content. I believe that this could make a real impact on a boy's motivation to carry on trying and to tackle future work with greater self-belief.

Reflection

Undertaking this action research project has been the most exciting and rewarding professional development opportunity of my teaching career. Taking the time to set a challenging teaching goal, read up on the literature, use information from the literature to develop a classroom intervention, and to then implement it and study the boys' responses has allowed me to reflect on my teaching and the design of teaching and learning processes at a new level of depth and understanding. Before starting the project, I could not have given a satisfactory definition of self-efficacy, nor did I understand its importance and influence in people's lives. Ironically perhaps, I now realise that having embarked on this action research adventure to improve my boys' self-efficacy and agency has had a positive impact on my self-efficacy beliefs and agency as a teacher. Bandura's (2008) work again proves useful in making sense of this: successfully completing my action and my research report were both noticeable mastery experiences for me, especially as doing so was often challenging. However, I also relied on and was lucky enough to receive social persuasion by means of two key "encouraging persuaders" along the way — Janet Lien, the tireless leader of my action research Team Janet, and Eugene Stolk, my mentor at school, who have both helped incredibly with their knowledge, useful suggestions, and ability to reduce anxiety. The team members of Team Janet, my fellow action researchers, also helped by being "social modellers" along the way, as have existing research reports from previous IBSC action research cohorts. Having completed this action research project will impact the way in which I approach my teaching in the future: I feel braver to try new things, and I have been reminded of the immense value of using education research as a base on which to develop academic programmes. Lastly, I would like to thank my Headmaster, David du Toit, and my Academic Head, Heather Frankiskos, for giving me the opportunity to be part of the IBSC Action Research programme and for the support they provided along the way.

References

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (2006a). Toward a psychology of human agency. *Perspectives on Psychological Science*, *1*(2), 164–180.

Bandura, A. (2006b). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescent*s (pp. 307-338). Information Age Publishing.

Bandura, A. (2008). An agentic perspective on positive psychology. *Positive Psychology*, *1*, 167–196.

Baroutsis, A., McGregor, G., & Mills, M. (2016). Pedagogic voice: Student voice in teaching and engagement pedagogies. *Pedagogy, Culture & Society*, *24*(1), 123–140.

Blaschke, L. M., & Hase, S. (2016). Heutagogy: A holistic framework for creating twenty-first-century self-determined learners. In B. Gros & M. Kinshuk (Eds.), *The future of ubiquitous learning* (pp. 25–40). Springer.

Blaschke, L. M., & Hase, S. (2019). Heutagogy and digital media networks. *Pacific Journal of Technology Enhanced Learning*, *1*(1), 1–14.

Ferguson, R., Phillips, S., Rowley, J., & Friedlander, J. (2018). *The influence of teaching beyond standardized test scores: Engagement, mindsets, and agency.* http://www.agi.harvard.edu/projects/TeachingandAgency.pdf

Komarraju, M., Nadler, D.R., & Morrison, M.M. (2017). General efficacy scale. In V. Zeigler-Hill & T.K. Shackelford (Eds.), *Encyclopedia of personality and individual differences*. Springer International Publishing

Larmer, J., Mergendoller, J., & Boss, S. (2015). *Setting the standard for project based learning*. ASCD.

Mertler, C.A. (2017). *Action research: Improving schools and empowering educators* (5th ed.). SAGE Publications.

Reichert, M. & Hawley, R. (2010). *Reaching boys, teaching boys: strategies that work - and why*. Jossey-Bass.

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In M. Johnston, S. Wright & J. Weinman, *Measures in health psychology: A user's portfolio* (pp. 35-37). NFER-Nelson.

Silver, D. & Stafford, D. (2017). *Teaching kids to thrive: Essential skills for success.* Corwin.

Toffler, A. (1970). *Future shock*. Random House.

Vaughn, M. (2018). Making sense of student agency in the early grades. *Phi Delta Kappan 99* (7), 62–66.