

Teaching Creativity and Pedagogical Practice

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Abstract: This research paper addresses the topic of creativity and pedagogical practice, proposing ways in which creativity may be successfully taught or inculcated within a classroom environment. This is achieved through a review of secondary literature on both the topic of creativity in terms of how it is defined and how it can be taught, before making recommendations as to future practices on the basis of this research coupled with case studies. In particular, how new technologies can be incorporated into the classroom towards this end is considered. The paper begins by offering an interdisciplinary theoretical framework for creativity derived from philosophical, psychological, and educational theories of the concept. The ways in which creativity may be taught or learnt within is then considered, with particular reference to research that has problematised the classroom as a suitable learning environment for creative skills as well as research that has proposed approaches to inculcating creativity using new media. Finally, utilising the example of several case studies, this paper proposes potential approaches to inculcating creativity within the classroom through a holistic approach to art education that incorporates new media such as communication technology.

Keywords: Epistemological pessimism, cognitive psychology, pedagogical model, deschooling, cross-fertilisation

1. Introduction

This research paper examines the topic of creativity and how it may be taught and inculcated through pedagogical practice in a classroom environment. This research is primarily undertaken through a review of secondary literature and is analysed from an interdisciplinary perspective, taking into account philosophical and psychological perspectives on the concept of creativity and how they may be utilised to improve teaching creativity and pedagogical practice. The research issues underlying this investigation can be summarised through the three following questions:

- What is creativity and how can it be defined?
- How can creativity be inculcated within a secondary/tertiary classroom environment?
- What methods of classroom teaching are most conducive towards teaching creativity?
- Using the case study of teaching creativity in Art, how can holistic teaching practices help encourage creativity in students?

The objective behind answering these questions is ultimately to make recommendations for future pedagogical approaches and teaching practices based on the research's findings that are applicable to secondary or university level education in Hong Kong. Furthermore, as a consequence of paradigmatic shifts towards teaching online precipitated by the COVID-19 pandemic crisis, the prospect for how new

technologies might be incorporated into the classroom towards teaching creativity is elevated in consideration of these recommendations.

To this end, the research project is undertaken using secondary research into the intersections between creativity and education, and consists of an extensive review and analysis of the theory and research behind the phenomenon of creativity and how it may be taught. The first section of this essay focuses on creativity as a phenomenon and how it may be defined. This takes into account the perspectives of cognitive psychology, as well as the philosophy of aesthetics as to the nature of creativity. The problematisation of creativity in terms of the flexibility of its definition is resolved through adopting a pragmatic perspective of creativity as involving the production of something valuable and novel. The second section of the research paper examines the perceived difficulties in teaching such a skill, focusing on challenges brought by educationalists towards the suitability of the classroom environment towards inculcating creativity in students. This challenge is resolved through reference to theory and research advocating for the incorporation of digital technologies into classroom environments in order to adopt new pedagogical approaches to the teaching of creativity. The final section of this essay then looks at how these technologies might be utilised to teach creativity in both physical and online classroom environments. Using case studies from art education, the research demonstrates how holistic approaches to contemporary art may be used to improve creative skills in learners, before offering recommendations as to how this approach might translate into practices in the physical and virtual classroom.

2. Theories of Creativity

The section establishes a theoretical framework from which the teaching of creativity may be approached, focusing on difficulties in defining creativity as a phenomenon and a skill that impinges upon the challenge of the teaching creativity as it pertains to educationalists. Much of this requires an interdisciplinary approach to the topic, as the primary debates regarding how best to teach creativity rely upon definitions of it as a skill that emanates from debates within psychology and philosophy. The problem with teaching creativity ultimately is in itself a product of previous educational approaches to the skill, insofar as it has historically been undervalued as a skill that is amenable to being taught, as is highlighted by philosopher Ian Jarvie:

The fundamental problem is, I believe, absorbed during our elementary education. We are taught that artistic, cognitive, and technical achievements are unique events, miracles, strokes of luck (or genius) which we should mainly be concerned to welcome and study. This fundamental epistemological pessimism seems to foreclose the problem: creativity is just an inexplicable 'gift'. (Jarvie, 2009, p. 46)

The 'fundamental problem' that Jarvie describes is thus a chicken-and-egg scenario by which the lack of focus on teaching creativity in schools reinforces the belief that this is because it is an impossible endeavour. Refuting this belief in terms of demonstrating the theoretical and empirical possibility for teaching creativity – as is the subject of the second part of this essay – is predicated upon resolving the epistemological despite that Jarvie refers to.

This problem is not simply 'epistemological pessimism' as Jarvie puts it, but a lack of clarity as to the definition of creativity that is being discussed. In essence, in order to assess how best to teach creativity, it is first necessary to establish how creativity may be defined and measured. This problem is exacerbated by widespread disagreement across contemporary philosophy and psychology as to how creativity is to be defined. Larry Briskman (2009), for example, has highlighted disagreement across disciplines as to how creativity is to be identified, with typically measuring creativity by the quality of the creative product and others as defining it by evidences of creative processes. With respect to how this applies to education, creativity from the perspective of teaching art, for instance, may be evidenced by the quality of the creative product itself, whereas creativity from the perspective of teaching science may be more measurable in terms of the problem-solving activity that goes into research and analysis. This problematises both how creativity may be taught and how it may be assessed insofar as there are potential distinctions in how it is defined and how it is expressed in endeavour.

A synthesis of these definitions has been attempted by cognitive psychologists such as Matthew Kieran, who defines creativity as a process of thought that is evidenced by the creation of an end-product that is both ‘novel’ and ‘valuable’ (Kieran, 2014, p. 203). This approach to synthesising the definitions of creativity in a way that is practically amenable to being taught and assessed is affirmed by philosophers, such as Berys Gaut (2010), a professor of aesthetics. This understanding allows for the possibility of teaching creativity through the inculcation of creative thinking processes as justified by cognitive psychology, as well as permitting the assessment of creativity as a skill through the creation of products that are unique and contain value. Although the latter criterion may seem subjective, this allows the measurement of creativity some degree of flexibility and adaptability across disparate creative domains such as arts and sciences.

3. Pedagogical Approaches to Creativity

By allowing for the theoretical possibility of inculcating and assessing creativity, it is necessary to examine the ways by which this might be possible in practice. Although the above perspectives derived from philosophy and psychology affirm the theoretical potential to teach creativity as a skill, how this might be approached methodologically falls within the domain of education. This section of the research project examines what empirical research from the field of education (encompassing also educational psychology) has to say across the body of literature on teaching creativity. Importantly, this review of the literature considers whether classroom environments are generally conducive towards the teaching of creative skills, and to what extent new technologies may impact pedagogical approaches to this either positively or negatively.

The literature on current pedagogical approaches to instilling creativity in learners suggests widespread variations as to the approaches behind teaching creativity. Unlike across psychological and philosophical approaches to the subject, there is apparent consensus among educationalists that creativity is indeed amenable to teaching in some contexts (Lin, 2011; Amabile, 1996; James, Lederman, & Vagt-Traore, 2004; Jeffrey & Craft, 2004). Robert Sternberg (2019) has summarised some of the common extant methods towards enhancing creativity, including synectic approaches, DeBono’s (2015) theory of lateral thinking, and other commonly used methods such as ‘brainstorming’. All these tend towards certain creative processes with evidential products such as ‘problem-solving’ exercises, although research has demonstrated that ‘redefining’ problems is more conducive towards producing high quality creative products than problem solving within defined paradigms (Sternberg & Lubart, 1995). In other words, it is the challenging of assumptions as well as the overcoming of obstacles that is conducive towards creative output (Sternberg, 2019).

This is to say that there are potentially common creative thought processes that underpin creative endeavours across various types of tasks, without any clear distinction between creative enterprises across distinct domains. Creative skills – as a primarily cognitive process – may therefore be defined also as ‘creative thinking’, and this approach makes its teaching and study more applicable across various domains.

4. Creativity in the Context of Hong Kong

Naturally, much of the above literature pertains to research carried out within Western institutions and pertains to European or English-speaking education systems. Historians of creativity such as John Baer and James C. Kaufman (2006) and Weihau Niu and Sternberg (2002) have identified distinctions in approaches in Asian and Western schools of thought, making the context of Hong Kong a unique case because of its intersection between these cultural spheres. Yu-Sien Lin has examined pedagogical approaches to creativity in the context of their application within classrooms in Asian schools, and has found that a high degree of variation in pedagogy is precipitated by the lack of ‘consistent rhetoric’ as to the correct approaches (Lin, 2011). However, others have found some degree of congruence in approaches across Chinese societies. In research comparing approaches to teaching creativity across China, Taiwan, Hong Kong and Singapore, Niu concluded that these societies ‘share the same cultural tradition and the same fate in terms of nurturing the creativity of their people; that is, creativity is no

longer devalued in Chinese societies' (Niu, 2006, p. 390). However, Niu (2006, p. 389) also notes that creativity has been comparatively undervalued in Hong Kong until relatively recently, utilising statistics that demonstrate a lack of research output from psychological and educational perspectives in Hong Kong in comparison with other Chinese societies.

However, despite the lack of a strong and distinct body of research pertaining to teaching creativity in the context of Hong Kong alone, the shared cultural traditions across Chinese societies make them potentially amenable to the production of a pedagogy applicable across all the above educational systems. According to Niu, this is a result of the cultural hangover from shared Eastern Religions that foster the notion that creativity is a skill which is amenable to being taught and learnt: "Even though Taoism and Confucianism offer entirely different approaches to nurture creativity, it is apparent that Chinese culture fosters an incremental mindset of creativity, viewing creativity as something people can develop throughout their lives" (Niu, 2019, p. 450). As a result, there have been several attempts to develop pedagogical approaches to teaching creativity in East Asian contexts.

For example, on the basis of research carried out in China, Taiwan, and Hong Kong, Yu-Sien Lin (2011) has developed a pedagogical model potentially applicable to the context of teaching in Asian contexts. According to Lin, research on creativity from the perspective of education typically falls within three categories of concern: teaching, that is, the ways in which the actual process of teaching itself can be utilised to bring about more creative skills in learners; environment, meaning the contexts within which creativity may be instilled as a skill, including the classroom but potentially expanding beyond this into broader social contexts for learning; and teach ethos, which might be more broadly described as the pedagogical approach that underpins the actual teaching practices that constitute the first area of study above. This model is naturally far from definitive or exclusive, but it demonstrates how researchers in education have typically determined the teaching of creativity to depend upon three interrelated factors: overall pedagogical approach, the learning environment, and teaching practices.

Lin (2011, p. 152) utilises their tripartite model based on teaching, environment, and ethos to demonstrate how these interconnected elements should guide how teaching creativity is approached, arguing that pedagogy is ultimately defined as a combination of these factors in consideration.

The eschewal of traditional, top-down, linear approaches to teaching are replaced with a dialogic approach towards teaching that considers the needs of learners and the learning environment rather than deciding upon a set array of effective teaching practices applicable under all circumstances:

...It is argued that the creative endeavours of both teachers and learners in an effective teaching/learning process are indispensable. In other words, the three elements of creative pedagogy interplay and contribute to each other, forming a dialogic and improvisational process with creative inspiration, supportive teacher ethos, effective inquiry-based strategies, and learners' creative and autonomous engagement. (Lin, 2011, p. 153)

Lin's model therefore arrives at certain factors that are crucial to foster in terms of instilling creativity among learners: improvisational process; creative inspiration, 'supportive' teaching approaches; inquiry-based strategies; and autonomous engagement of learners. Importantly, this pedagogical approach describes to some degree an ideal learning environment conducive towards creative learning. However, the degree to which a traditional classroom environment is in itself amenable to these conditions remains to be established.

5. Creativity in Schools

Given the above pedagogical approach to instilling creativity, it may be asked whether school classrooms provide a suitable environment amenable to teaching given these criteria. Indeed, this query has provoked a considerable amount of debates within education as to the suitability of school classroom environments to teaching creativity. For example, Porandokht Fazelian and Saber Azimi (2013) have observed the potential for traditional schooling to erect 'barriers' to creative learning, in terms of the hierarchical nature of the classroom, but also because of broader cultural trends of learning.

Sternberg (1985) argues that the problem is not simply a cultural or institutional tradition, but in terms of the actual teaching practices that are utilised in classrooms. For instance, if the goal is to instil or enhance creative thinking through problem-based exercises, there is little evidence that problems with clear, definable, measurable answers encourage creative thinking in any way. This, he argues, is more of an issue within scientific subjects than the artistic:

On the one hand, most mathematics, physics, and chemistry problems presented in schools are well-structured problems. So are the majority of problems presented in programs for training critical thinking. On the other hand, so called insight problems tend to be ill structured. For example, consider Darwin's insights that led to his theory of evolution. Clearly, no well-structured steps could be formulated to lead to such an insight. (Sternberg, 1985, p. 196)

The issue is not simply one confined to scientific subjects – although it may be pronounced here – but is one regarding how teaching practices and particularly assessment typically rely upon the creation of products that are not ‘unique’ and certainly not valuably unique, but predictable and consistent. As Sternberg points out, the types of problems that require creative and critical thinking ‘generally have no one right solution, and even the criteria for what constitutes a best solution are often not clear’ (Sternberg, 1985, p. 197).

These concerns have led some such as Itir Rogoff (2008) to recommend the ‘deschooling’ of education in order to encourage creative and critical thinking in learning. This draws on the theories of education put forward by Ivan Illich (1971) and Lev Vygotsky (Shiyan, Bjorklund, & Samuelsson, 2018), although it may be argued that what is argued for (particularly in Vygotsky) is the unsuitability of teaching practices, environments, and ethos rather than the unsuitability of learning institutions towards creative learning altogether. As Ronald Beghetto (2019) argues, it is the pedagogical obstacles to creative learning that must be addressed rather than anything intrinsic about schools as institutions or classrooms as environments:

Familiarity with classrooms can mask various socio-psychological, material, political, and historical features that influence creative expression in nuanced and surprising ways. Failing to take these features into consideration can result in misattributing research findings about creativity in classrooms to overly simplistic causes (e.g., “schools kill creativity”; “teachers do not like creative students”). (Beghetto, 2019, p. 587)

The classroom as an environment to creative learning is to some extent mediated against by certain typical features, such as: ‘sameness’ across classroom environments; the prioritisation of non-distracting sociomaterial displays; discouragement of noise, movement, and physical interaction; the prevalence of predetermined roles and learning outcomes; and an emphasis on evaluative assessment. According to Beghetto, these classroom paradigms often serve as barriers to many necessary criteria for following creative teaching ethos, such as encouraging creative expression, providing students with ‘autonomy support’ (as opposed to authoritative teaching), and creating opportunities to view topics from different perspectives and possibilities (Beghetto, 2019, p. 596).

It may be noted that the barriers in traditional classrooms to learning identified by Beghetto likewise conflict with the necessary criteria for creative learning as identified by Lin as applicable in the context of Hong Kong (improvisational process; creative inspiration, ‘supportive’ teaching approaches; inquiry-based strategies; and autonomous engagement of learners). Therefore, it is necessary to theorise and formulate an appropriate approach to teaching in the classroom that sufficiently incorporates this pedagogical approach to creativity.

6. Teaching Creativity in the Classroom

This part of the essay utilises the approaches to teaching creativity entailed by the discussion of pedagogies above in order to arrive at recommendations for how creativity might be taught in classroom environments. This makes use of research that suggests the utility of a holistic approach to teaching creativity which is also implied by the literature reviewed above. An example of how classroom

teaching practices might be transformed according to this pedagogical approach is given through the case of art education, which is discussed both theoretically and with reference to case studies. It is argued that holistic approaches to interpreting contemporary art may well be conducive towards teaching creativity within classroom environments. In addition to this, recommendations as to how new technologies might be utilised to this end are offered in light of the shift towards online teaching as precipitated by the COVID-19 pandemic crisis.

7. Holistic Approaches to Teaching

The above criteria for teaching and learning creativity as described by Lin (2011) – that is, improvisational process; creative inspiration, ‘supportive’ teaching approaches; inquiry-based strategies; and autonomous engagement of learners – broadly describe an holistic approach to teaching and learning. This is entailed by the emphasis on improvisational rather than instructional or rigid learning processes; the necessity for ‘creative inspiration’ ahead of textbook-based or mundane topics or case studies serving as objects for study rather than as prompting creative inspiration; a supportive teaching approach to students’ autonomous engagement with learning materials, as opposed to teachers taking an authoritative or overly guiding and contextualising hand; and the implementation of inquiry-based strategies, such as encouraging criticism and open interpretation of phenomena. As argued above, these criteria in conjunction conflict with traditional classroom settings and pedagogical approaches, and it is argued that they are more conducive to holistic strategies in the classroom.

The positive impact of holistic learning approaches on well-being and learning progression has long been observed by researchers (Patel, 2003; Abd Majid, et al., 2018), but there is likewise a body of literature advocating for its success in instilling creativity among learners. Some researchers argue that improved creative thinking is a byproduct of a learning environment more conducive to the enhancement of pupil wellbeing (Krofflic, 1998), whilst others view it as a product of the open environment for learning in holistic approaches not otherwise permitted within traditional approaches to teaching (Beghetto, 2019). With respect to teaching ethos within the holistic environment, research has demonstrated the utility of teachers acting as a guiding hand rather than as an epistemic authority. As Sternberg observes, “students best develop creativity not when they merely are told to be creative but rather when they are shown how to be creative” (Sternberg, 2019, p. 98). This is undertaken through encouraging interdisciplinary or intersperspectival viewpoints on various topics, an approach sometimes known as the cross-fertilisation of ideas. This can take place in an individual’s approach to a specific problem or object of study but may also take place across individuals through fostering creative collaboration among students (Sawyer, 2017). The utility of group projects is not simply in the sharing and synthesis of ideas but in the creation of a creative learning environment in which individuals are engaged in collaborating towards creatively approaching endeavours as a matter of course. Ultimately, it is the fostering of such a culture of open investigation that is the environmental prerequisite for creative learning in a holistic environment insofar it is the student’s autonomous approach to learning that constitutes one of the essential pedagogical criteria as outlined by Lin (2011).

Some educationalists such as Berg, Taatila, and Volkmann (2012, p. 6) have attempted to systematise the implementation of holistic frameworks for teaching creativity through creating planning and diagnostic criteria for the successful implementation of holistic approaches conducive specifically to instilling creative learning.

These criteria serve four main purposes: sensitising for creativity in a way tailored towards learners; enabling learners to act creatively as individuals as a group; teaching the use of creative techniques and instruments; and giving adequate freedom for reflection upon and repetition of creative processes (Berg, Taatila, & Volkmann, 2012, p. 7).

Ultimately, such models can best serve as guides for implementation rather than providing designs in themselves: as Lin (2011) has observed, pedagogical approaches must be tailored towards learners and involve bottom-up as well as top-down input into learning. However, the actual practicalities of devising lesson plans and practices to some extent require a deal of forethought as to how to structure lessons and creative materials for students to autonomously explore. The following section describes

how this might be undertaken utilising a holistic approach to interpreting contemporary art, as exemplified by several case studies across holistic art education.

8. Contemporary Art

The utility of contemporary art towards providing a suitable focus for a holistic approach to fostering creativity is to some extents brought about by the nature of art as a subject and phenomenon. Beyond the production of art typically requiring creative endeavour in its production – a factor which is typically judged when assessing artistic products – the specific educational value for art is in terms of the creative processes required in its interpretation. As Stuart Richmond (2009) has observed, engagement with the visual world and the interpretation of the assemblages of meaning carried in artistic products specifically requires creative labour on behalf of the viewer. This is because engaging with art as a product involves creative interpretation in order to draw meaning. The particular utility of contemporary art towards this end is its lack of clear meaning despite its apparently deliberately semiotic intent: there are a variety of potentially valid interpretations available to the observer.

This is in effect the argument in favour of art's educational value put forward by John Berger (2008), who famously argued for open engagement with contemporary art as a means of enhancing critical and creative thinking skills through the demands it places on interpreting the empirical world in new ways. Likewise, Päivi Venäläinen (2012) has argued that engagement with contemporary art necessarily requires a holistic approach in circumstances where contextualisation is either sparse or non-existent. The individual is required to interpret the art product on the basis of their existing schema, synthesising the semiotic content they attribute to representations in order to arrive at possible meanings contained in what is apparently totally abstract but allegedly imbued with meaning:

Art leads the individual to establish, among other things, a perceptual, investigative, observing and experiential relationship with his or her environment. Art makes one alert to the use of different senses and leads to the discovery of the things. A relationship with oneself forms through the capacity of art to train thinking and other skills. Art involves intellectual deliberation and thinking in new ways. Studying within the context of art means the acquisition and creation of knowledge. The relationship with the self is also constructed through by the art encouragement of individual solutions, an analytical approach, different interpretations and creative activity (Venäläinen, 2012, p. 460).

In other words, holistic engagement with contemporary art is in itself a creative exercise in meaning-making. It is also a dialogic process insofar as the interpreter not only imbues the object with meaning through this process but exchanges these interpretations with others in a classroom environment, leading to creative syntheses of ideas at a group level (Venäläinen, 2012, p. 462).

Although this is to some extents described as a naturalistic process – assuming the autonomous engagement of the learner in meaning-making – there is still a role for the teacher in this. Indeed, this is the 'supportive' role as devised by Lin (2011), by which teachers do not instruct students on how to interpret contemporary, nor evaluate how correct their answers are, but rather to guide the student into interacting with the creative material and assessing the use and development of creative thinking processes in their interpretation. As above, the learner is not solving a problem, but defining and redefining the artistic material on the basis of the problem of interpretation, both at an individual level and in terms of subjectivity across the group. Importantly, the creative skills being developed are transferable rather than subject-specific, demonstrating that there is potential broad utility in the development of creativity through the methods used within art education.

Although the exact plan and design for teaching creativity through holistic pedagogical approaches to art education will depend largely on the class itself, there are extant programmes that may be used as case studies for the successful implementation of such a strategy. An example is the 'SciArt' programme at Welling School in Kent, England, which introduced a contemporary art programme to the science department (Ward, 2014). This interdisciplinary class utilised contemporary representations of art related to scientific concepts in order to encourage creative engagement with said concepts. Although the programme was originally teacher-led, the faculty fostered student engagement and

involvement in its direction and organisation, leading to a bottom-up approach with respect to what topics were to be studied in the class. This transformation in teaching ethos was not deliberate but was a gradual and natural result of encouraging students to engage with art autonomously (Ward, 2014). The teacher's role became one of sourcing the materials on the topics that the students wanted to study, as well as prompting class discussion through various open-ended questions. This demonstrates how very simple changes to teaching practices can transform the demands for creative thinking placed upon learners. Of course, there are naturally circumstantial challenges to implementing such practices, especially given the recent shift of education and both secondary and university levels to online teaching across Hong Kong. Given the likelihood of sporadic and perhaps more permanent trends towards online teaching moving forward, it is necessary to consider the applicability of the above teaching methods to the online classroom.

9. Online Classroom Implementation

The transformation of classroom teaching as precipitated by the COVID-19 pandemic crisis requires some addition to the above comments in terms of how a holistic approach to art education can be fostered in the online classroom environments where much of teaching is now taking place. Computers have long been considered amenable platforms for teaching creativity, dependent largely on the types of software being utilised and how it mediates interactions between teacher and students or between learners and creative material (Clements, 1995). The possibility for interactivity and especially visual communication now provided by new technologies and software now allow for interactions with creative materials that have previously only been theorised about in terms of online environments (Dicks, 2004).

In effect, the COVID-19 crisis has brought about recommendations that proponents of virtual deschooling such as Petar Jandric (2014) have been advocating for since the advent of the internet, and potentially removes many of the institutional problems regarding classroom teaching strategies and institutional cultures by necessitating the development of new pedagogies in accordance with the establishment of a new virtual teaching environment. Some desired outcomes – such as an end to the teacher as the authoritative interpreter of creative material – is effectively brought about by the shift online due to the extraction of teaching from the classroom. Models for how holistic approaches to learning can be fully realised in online environments must to some extent take their lead from extant long-distance learning courses at higher education levels, developing new creative practices in order to foster the holistic interpretation and collaboration of artistic materials possible in a classroom environment.

Developing lesson plans for online teaching of creativity therefore depends highly on the software being used and its potential applications. Inarguably, it relies upon visual communication being possible and the potential for class or group discussion through programmes such as Zoom or Teams. The teacher's role in planning lessons should utilise both a set of culturally relevant criteria for creative teaching such as that set forth by Lin (2011), and likewise utilise a diagnostic model for lesson plans such as that of Berg, Taatila, and Volkmann (2012). Beyond this, teachers need to source and present students with creatively inspiring visual materials along with some tasks or queries that prompt open-ended meaning-making on behalf of students. Through these means, students may be prompted to engage creatively with artistic products and enhance their creative thinking skills both autonomously and in collaboration with other learners.

10. Conclusion

This research project has examined pedagogical approaches to teaching creativity and how this may be implemented in physical and virtual classroom environments. It is argued that literature from philosophy and psychology defines creative endeavours as the production of something that is unique and valuable and that this is primarily undertaken through creative thinking processes. This provides a working definition for creativity that may be used to flexibly define the ways in which creativity applies across various taught subjects in ways which are measurable and/or testable. Research from within the domain of education and educational psychology contends that these skills are best enhanced through

utilising a holistic approach to teaching ethos in an environment appropriately structured to encourage creative thinking, especially through the redefining of concepts. In effect, creativity may therefore be instilled through encouraging critical and creative thinking across a variety of academic domains. A way in which this may be designed is through the example of meaning-making in the interpretation of contemporary art, a process particularly conducive towards creative meaning-making. Such approaches may be easily utilised in classroom environments through the structuring of lessons to encourage students to autonomously approach, interpret and reinterpret creative materials. However, new developments and research are required in order to produce definitive guidance as to how this pedagogical approach may be designed for implementation in online environments given the evolution of teaching practices brought about the COVID-19 pandemic crisis. Although the pedagogical approach theoretically transfers into online teaching environments – and may indeed thrive in such environs – its application to the new classroom environments as defined by specific softwares may require study. In particular, the ways in which this might be undertaken within local education systems and their provisions for online teaching – such as that of Hong Kong – will likely prove conducive towards allowing for the continuation of instilling creativity in students in the post-coronavirus era.

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