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Author(s)/Höf.: Gísli Thorsteinsson, Háskóli Íslands / University of Iceland , Tom Page, Loughborough University,

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How Do Practising Teachers Understand Creativity?

Gisli Thorsteinsson, University of Iceland, Reykjavik, 101, Iceland, cdt@hi.is.

Tom Page, Loughborough University, Loughborough, LE11 3TU, UK,
T.Page@lboro.ac.uk.

Biographical Details

Gisli Thorsteinsson, is a Professor at the University of Iceland, in the School of Education. He finished his PhD at Loughborough University in 2012 exploring the values of using Virtual Learning Environment for ideation in general school education. Gisli was the Chairman of the Association of Icelandic Industrial Arts Teachers from 1995 to 2003 and is associated with the NST Coalition of Industrial Arts Teachers in Scandinavia. He is also on the Board of 'Nordfo', the Pan Scandinavian co-operative researching art and design projects in Scandinavia. Gisli has written numerous articles concerning Design and Craft education and has published several textbooks about innovation education.

Tom Page teaches electronic product design, interaction design, design and manufacturing technology and physical computing. His research interests are in engineering design, value management, technology education and electronic product design. He is the organiser and co-ordinator of all design and prototyping activities required for the Engineering Education Scheme (EES) workshop. He has been a consultant for many Small and Medium sized Enterprises (SMEs) and large-scale manufacturing and service enterprises in the UK, in engineering design and electronic product design. Tom's work has been widely published in the form of journal papers, book contributions, refereed proceedings, refereed conference papers and technical papers. He has supervised research students, examined PhDs and MPhils and has acted on the reviewing panel of a number of key journals and conferences.

Abstract

This research sought to explore teachers' views, in terms of the assertion that creative development is important within the National Curriculum. It aimed to identify the extent to which creative development is supported within the current curriculum and whether more should be done to encourage and promote its practice. Finally, it investigates the potential barriers that appear to restrict creative development in schools in the UK.

Existing literature covering multiple facets of creativity, such as how academics define creativity, establishing whether it can be taught and identifying whether there is a current 'teach to test' culture, was explored and the literature review highlighted that previous research into the development of creativity in schools has often failed to consider the perspectives of teachers. Consequently, the current research sought to address this by gaining the views of teachers across the UK.

The results showed that 88% of respondents viewed creative development as either 'very important' or 'extremely important' and 95% of teachers believed that the National Curriculum

should do more to encourage creative practice. Finally, 71% of all participants asserted that the largest barriers to creative development were limited teaching time and excessive exam pressures.

Keywords: Creativity, teachers, National Curriculum, research.

Introduction

There has been much criticism in the press and from educators concerning the lack of creativity in schools in the United Kingdom (UK). MPs have stated that creativity in schools must be taken 'far more seriously' if it is to avoid being squeezed out of a crowded curriculum (BBC News, 2007). Thus, the purpose of this research was to explore teachers' perspectives as to whether student creativity is being sufficiently nurtured and developed through the National Curriculum (NC) in UK secondary schools, or whether more should be done. This was achieved through primary research; specifically, the distribution of questionnaires to a sample of secondary school teachers. Follow-up interviews were conducted, where necessary, in order to explore any underdeveloped or intriguing opinions arising from participants' questionnaires.

The article firstly examines the literature pertaining to creativity and defines any related terms. It then outlines the research method and reports the results. Finally, the authors discuss the results, draw their conclusions and reflect on another research, based on their experiences.

Can Creativity Be Taught?

In order to understand the benefits of enhancing creative practice, it is necessary to define the term 'creativity'. It is believed that there are over one hundred definitions of creativity (Meusburger, 2009:99), leading to little consensus regarding a specific meaning. Despite this, key themes running throughout many of the definitions include notions of personal involvement, novelty and value (Mumford, 2003). However, such definitions refer to creativity in terms of subjective variables, which makes the objective measurement of creativity a challenging task. It has been argued that this is the root cause of the wide debate regarding creativity in the educational system in the UK (NACCCE, 1999).

The notion of creativity has a positive correlation with factors such as economic growth and business success (The Creative Economy & Programme, 2006; Department for Culture, Media and Sport et al., 2008; Florida, 2002); furthermore, a positive relationship between creativity and levels of academic achievement has been identified (Robinson, 1999; Craft, 2005). Much of the debate on creative learning concerns whether creativity is innate and, consequently, whether it can be taught or not.

To date, academic research features varied and opposing perspectives in understanding creativity. However, confluence theories of creativity are predicted to become more widely adopted and prevalent in future research (Sternberg and Lubart, 1999:10). This approach ascertains that creativity is the product of multiple elements converging and thus offers a desirable solution accounting for both biological and environmental factors. For example, Csikszentmihalyi (1999) presented the *Systems View of Creativity*. This confluence model suggests that creativity is as much a social event as a psychological one and claims that, with the right infrastructure, creativity *can* be nurtured: such a shift in perspective mirrors a change in academic belief. In response to rapid changes in society, technology, the economy and the

environment over the past two decades, academics have begun to view creativity as something that everyone possesses (Craft, 2005; Claxton, 2006).

'Teach to Test' and Creativity

Many scholars believe that education could do more to harness creative talent (Cox, 2005; Roberts, 2006), as the UK currently places significant focus upon academic performance. Menken (2006:525) coined the term 'teach to test' to express the notion of primarily educating students to pass exams, with little emphasis on developing skills such as creativity. Simmons and Thompson (2008) argued that the expression of creativity allows teachers and learners to escape the narrow confines of the centralised curricula, but that the independence of teachers has been reduced by the overwhelming pressure to meet targets. In contrast, other researchers have suggested that the inclusion of creative policies alongside performance-driven criteria, such as targets, market competition and league tables, increases levels of tension for those learning and teaching (Ball, 2003; Jeffrey, 2003; Troman et al., 2007b). Consequently, heated debates continue as to whether students and teachers would benefit from a greater emphasis on creative development.

Atkinson (2004) measured levels of creativity in fifty-four degree students undertaking teacher training in Design and Technology and fifty students studying for their GCSE Design and Technology examination, and the research 'indicated that there were relatively few creative individuals' (p.1). From this, it can be predicted that a 'teach to test' educational system reduces the development of creative thought, thus providing an insight into the effect that current teaching methods have on creative development. However, due to the small sample size, the findings of the research may not be indicative of the whole UK demographic. Despite this, similar results have been found more recently. McLellan and Nicholl (2013) reported that one-in-six Design and Technology GCSE students (17%), over a large sample of fifteen schools, disagreed with the statement that their work 'encourages me to think for myself'. While it may be too reductionist to assume that these findings can be extrapolated to other subjects within the secondary curriculum, it might be argued that greater levels of creative expression are expected in a subject such as Design and Technology. Hall and Thomson (2007:319) stated that both teachers and young people are failing to be stimulated by a 'narrow and dull' curriculum rooted in a performance-driven structure.

In view of such findings, the emphasis on educating to attain high academic standards is viewed by some as greatly detrimental. David Willets, UK Shadow Education Secretary, agreed that there should be an increased focus on educating outside of targets and league tables, saying: 'Much of what is valuable in education cannot be measured in tests and league tables, just as the value of life is not only about prices and markets' (The Guardian, 2006). Additionally, Page informed: 'Students believe, sometimes mistakenly and sometimes correctly, that employers and graduate programmes place enormous emphasis on grades. The cost to society of students pursuing high grades rather than accumulating knowledge is enormous' (2007:359-360). The knowledge that Page refers to may be viewed as knowledge of personal creative abilities or knowledge of how to develop one's creativity. Such arguments, and the aforementioned supporting research, provide a voice to the emerging concern that, currently, students are not adequately encouraged to think for themselves. Many struggle to develop unique perspectives or acquire knowledge which enables them to generate better, more innovative solutions to problems. As stated by Page, the impact of this is significant.

Research Methods

The main aim of the research was to explore the current level of focus on the nurturing of student creativity within the UK secondary national curriculum and, consequently, whether this focus should be intensified.

The objectives were:

- To research current definitions of creativity and consider whether creativity can be taught.
- To investigate, via current literature, the importance of the development of creative skills and wider implications of this.
- To carry out an investigation, using questionnaires or surveys to gain an insight into whether UK teachers believe that the current secondary curricula develops students' creativity or whether more can be done.
- The evaluation of whether there are any barriers to the nurturing of creativity in UK secondary education.

The research questions were:

- How important do teachers believe it is to develop student creativity in school?
- Do teachers believe that greater emphasis should be placed on fostering creativity within the UK secondary national curriculum?
- What obstacles are there in developing students' creativity?

The literature review highlighted conflict, in terms of whether levels of creative development should be enhanced in schools. Consequently, the purpose of this study was to gain a better understanding of the perspectives of teachers, with regards to whether greater emphasis should be placed on fostering creativity within the UK secondary national curriculum. Initially, questionnaires were sent to participants, to gather general consensus of thought. The questionnaire included an optional question requesting consent to be contacted for a follow-up interview. This was used, where appropriate, to explore interesting answers and opinions in greater detail.

The research methods below were considered in order to determine which form of data collection would provide the most accurate and reliable results in this research:

1. Surveys & questionnaires. These provide a relatively simple and straightforward approach to the study of attitudes, beliefs and values and are an efficient method of gathering large amounts of data, at low cost, within a short period of time. It is also easy to retrieve large quantities of information and generally supports anonymity, thus encouraging honest answers, and is ethically sound. Data can be analysed more objectively than in other forms of research.
2. Semi-structured interviews allow for quick data collection and it is easy to assess and evaluate participants' levels of emotion. Indeed, when used as a method of conducting qualitative research, interviews are an effective way of understanding the experiences of others (Seidman, 1998). Open or semi-structured interview strategies allow the interviewer to probe deeper into responses and gain clarity on unclear answers.
3. A focus group allows participants to interact with one another, thus generating in-depth discussion and new ideas. It encourages participants who would not usually comment in an interview situation to contribute to the discussion. Due to the dynamic nature of the methodology, the researcher may adapt and change the direction of a discussion, in order

to remain on topic. As every participant knows they are under observation, it is easy to fully engage with them.

Through the analysis of the advantages and disadvantages of potential research methods, it became apparent that a focus group would not be suitable for this study: the likelihood of participants experiencing demand characteristics through altering their views and beliefs to fit the status quo of the group was too high. In addition, it would have been a challenge to create a geographically diverse sample, as a result of limited participant availability.

It was decided that participant anonymity was essential. Initially, surveys were favoured as they provided a fairly straightforward means of collecting large amounts of data in both a cost effective and time efficient manner. A rise in online survey tools has enabled researchers to easily access a wider range of participants, thus gathering a larger quantity of data. This data can be analysed more quickly, due to the automation of data collection (Ilieva et al., 2002).

It was ascertained that the prevalence of examiner bias could be reduced by limiting the amount of pre-loaded, multiple choice questions; this, however, produced its own issue. The qualitative nature of the survey meant that the quality of data gathered may have suffered if participants provided only short answers, thus creating limited insight. To remedy this, follow-up interviews were used as a secondary measure, in order to provide some participants with the opportunity to expand upon their answers within a semi-structured environment.

Results and Discussion - Survey

a. Respondents by Subject

Participants were initially asked which subject they primarily taught and only one participant skipped this first question. Figure 1 below illustrates response levels per subject. It was essential that participant responses mirrored the views of all secondary NC teachers; thus, an even distribution of respondents per subject was desired. The findings, however, showed that a large quantity of respondents taught Design and Technology, representing approximately 10% of all participants. It may be argued that this causes results to be low in ecological validity as the findings cannot be extrapolated to represent the generalised views of the entire teaching population. Design and Technology is viewed by many as one of the more creative subjects within the curriculum and thus results may be biased, as these participants are more likely to express higher levels of importance towards creativity in schools. A volunteer sample was chosen to gain an adequate response rate and avoid geographical bias and, consequently, such issues could not be overcome. This was worsened by the fact that there were no responses from teachers in some subject areas: these subjects have not been included in Figure 1.

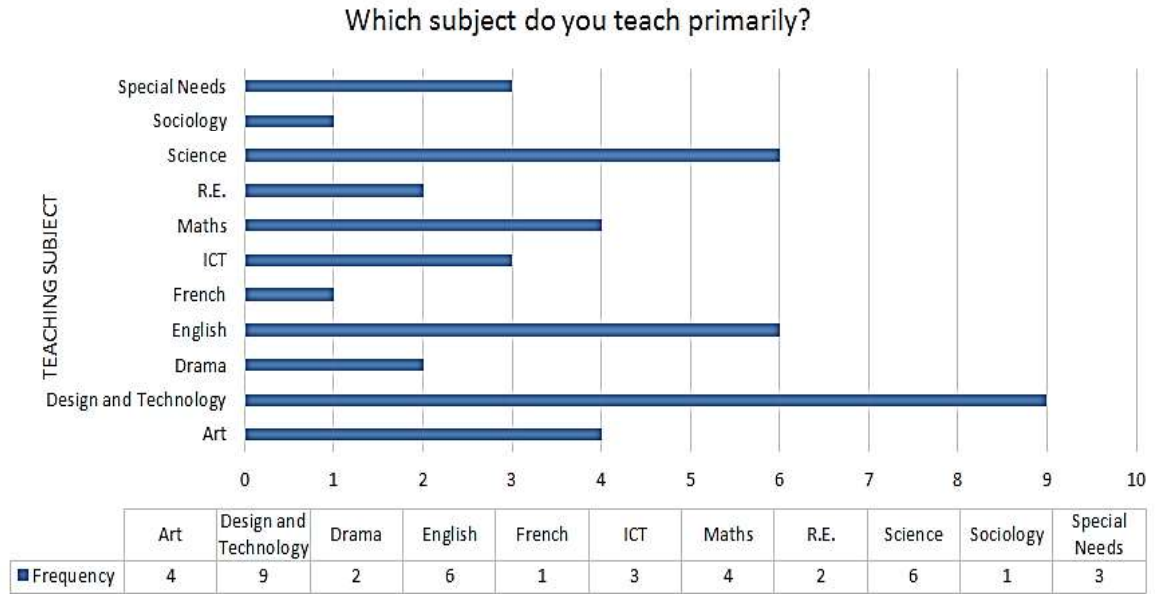


Figure 1: Graph showing survey response level per subject

b. Teachers' Perspectives on the Importance of Creative Development

This question was split into two sub-parts, in order to gather both quantitative and qualitative data. All respondents completed the first part of this question, which asked individuals to select, using a Likert scale, how important they felt it was to develop students' creativity in school. Figure 2 below illustrates the findings:

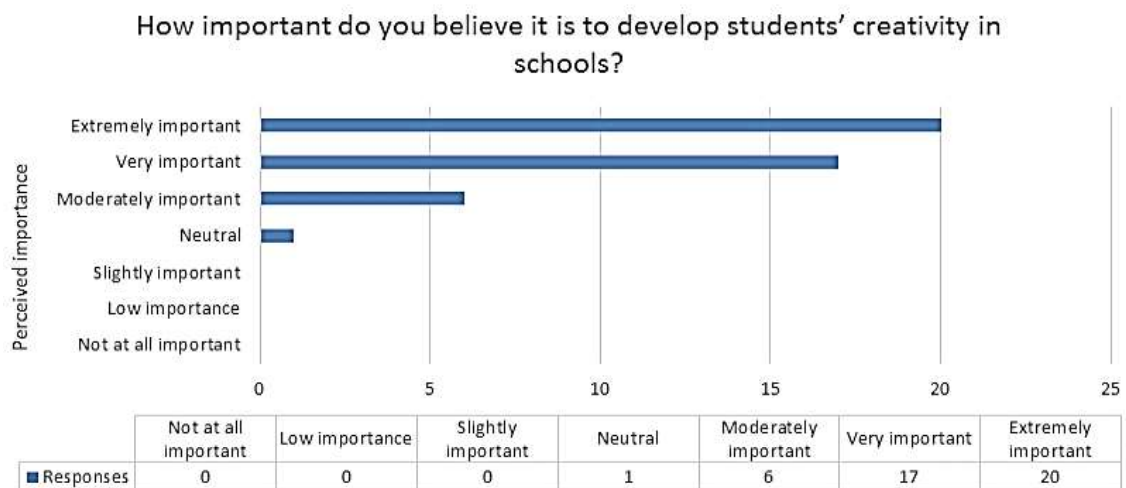


Figure 2: Teachers' perspectives on the importance of developing levels of creativity in schools

It was demonstrated that just under 50% of all participants felt it was 'extremely important' to develop students' creative ability at school. In addition, a highly significant 88% of respondents selected that this was 'very important' or greater. No participants perceived creativity as unimportant, or even of low or slight importance: this suggests that almost all teachers across the UK view creative development as an integral part of a student's education, which, in turn, has clear implications for the National Curriculum. The next question asked participants to give a written explanation of why they held this view and all but one participant addressed the question. The tabulated responses may be observed in Figure 3.

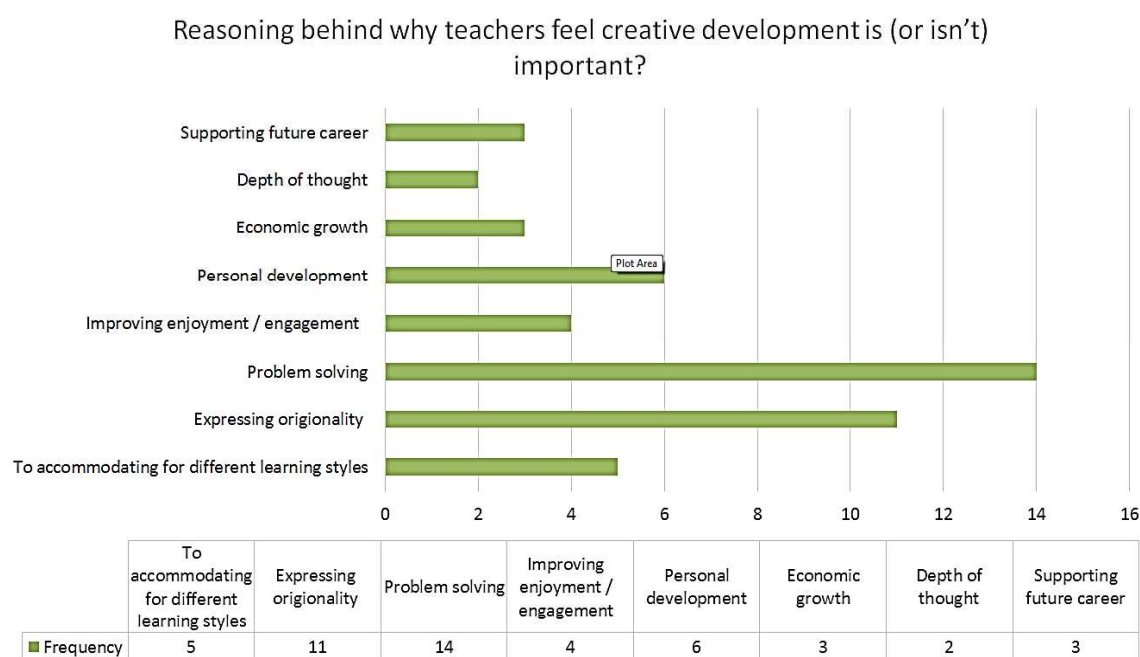


Figure 3: Reasoning behind why teachers feel creative development is (or isn't) important

Figure 3 above provides an overview of the most significant collated responses. Out of a total of 41 responses, 34% of respondents stated that enhanced levels of creativity improves problem-solving ability, while 27% of participants asserted that creative development provides students with more scope to express degrees of originality, either through thought or practical application. Other popular responses in why teachers felt creative development was important included aiding the personal development of the child, creating a better-rounded individual and accommodating students with different learning styles.

It was readily apparent that teachers believe that the ability to generate novel and original ideas is directly linked to levels of creativity. More specifically, creativity allows students to interpret and approach problems from new, unique perspectives. The vast majority of teachers recognised this as of great importance and, consequently, as something that should be encouraged within the school environment. However, creative thinking is not just important within the confines of the National Curriculum.

The above supports research which stated that levels of creativity are closely linked with economic growth (The Creative Economy & Programme, 2006; Department for Culture, Media and Sport et al., 2008; Florida, 2002). Such results suggest that teaching resources spent early on in developing children’s creativity will be recouped and surpassed via economic advancements over time. Educational policy-makers should thus keep the relationship between creative development, problem solving and the economy in mind when deciphering teaching focus and delegating valuable teaching resources.

This view supports earlier research by Robinson (1999) and Craft (2005), who established a relationship between levels of creativity and academic achievement. It may thus be assumed that creativity does not only enhance skills within the confines of subjects such as Art and Design; indeed, it also aids levels of knowledge and ability across a wide spectrum of subjects, creating more diversified, well-rounded individuals.

c. Does the UK Secondary National Curriculum Support the Development of Student Creativity?

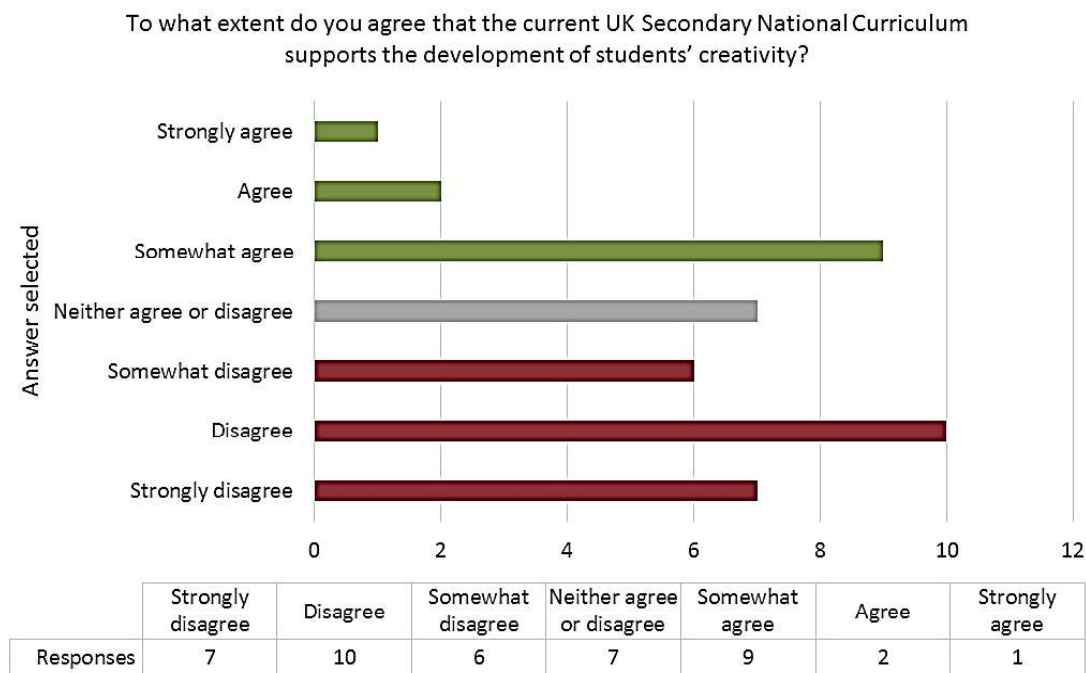


Figure 4: Do teachers agree that the NC supports the development of student creativity?
 Figure 4 illustrates an in-depth display of to what extent teachers feel that the NC supports creativity. At face value, opinions appear to be fairly well distributed. Figure 6 provides a simplified version of the data, in which opinions were placed into three categories: agree, disagree and neutral. The results demonstrated that, of the 42 respondents, only around 25% agreed that the NC supports creative development, with just over 50% disagreeing with this statement. This clearly supports research by Cox (2005) and Roberts (2006), who stated that many in education feel more could be done to harness creative talent.

Figure 5 below shows responses that occurred more than once, with colour coding used to provide a clear illustration of opinions: red bars represent negative opinions, green bars highlight positive comments and grey bars represent neutral opinions. At a glance, it is obvious

that the vast majority of comments were negative, in terms of the NC's current focus on creative development. Common themes are demonstrated by the following statistics:

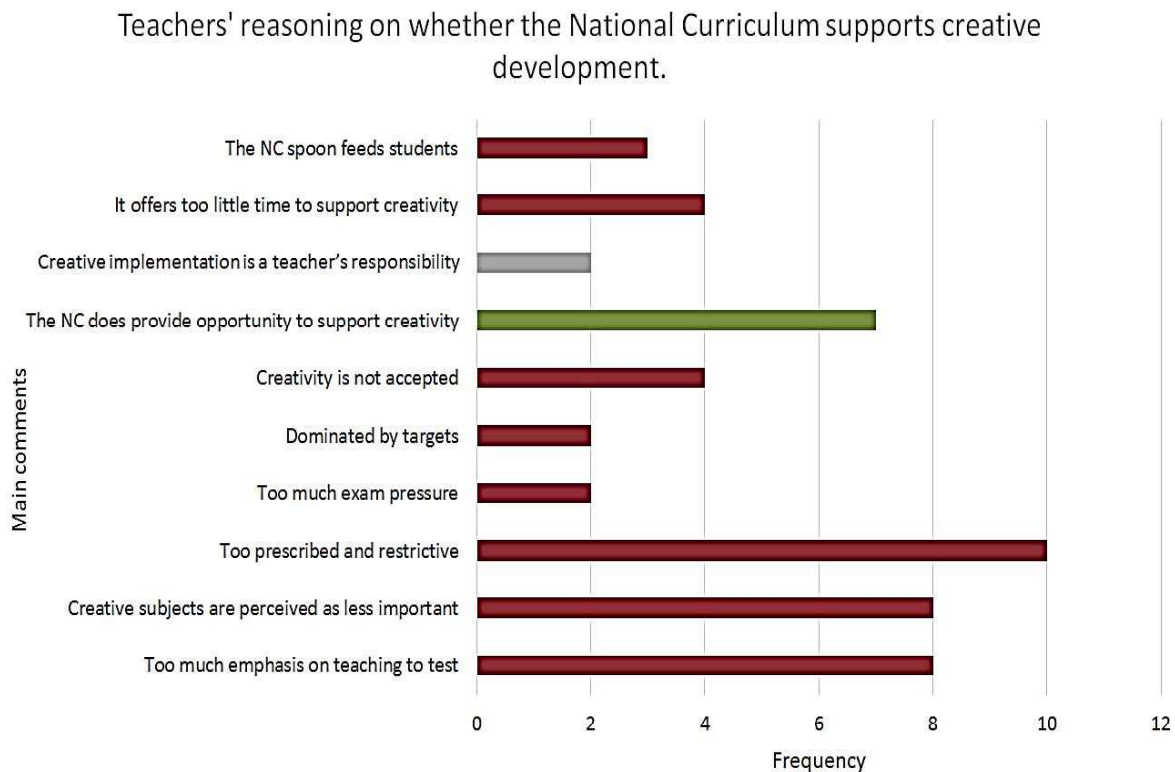


Figure 5: Teachers' reasoning as to whether the National Curriculum supports creative development.

- 26% of teachers made reference to the NC as being too prescribed and rigid, leaving little room to teach, learn or develop students' creativity. This supports previous research by Hall and Thomson (2007:319), who stated that teachers and young people alike are not stimulated by a 'narrow and dull' curriculum.
- 21% of teachers stated that the NC favours traditional subjects (Mathematics, English and Science) over more creative 'softer subjects', such as Art and Design. Many blame Michael Gove, the British Conservative Party politician and current Secretary of State for Education, for this inequality, following his decision to introduce subject hierarchy.
- 21% of teachers asserted that there is far too much emphasis on the 'teach to test' culture, thus teaching students to gain knowledge to pass exams at the detriment of developing skills. This pressure is also exacerbated by the presence of academic league tables.

d. Should Greater Emphasis be Placed on Developing Students' Creativity?

All 42 participants completed this question and it was readily apparent that the vast majority of respondents believed that more should be done to develop students' creativity through education, with 43% agreeing strongly. Only 7% of respondents felt that enough was being done.

Upon closer investigation, it is highly probable that the participant who selected 'strongly disagree', in terms of this question, did so by accident. Thus, in the following question, participants who agreed that greater emphasis should be placed on developing students' creativity were told to expand upon their previous answer.

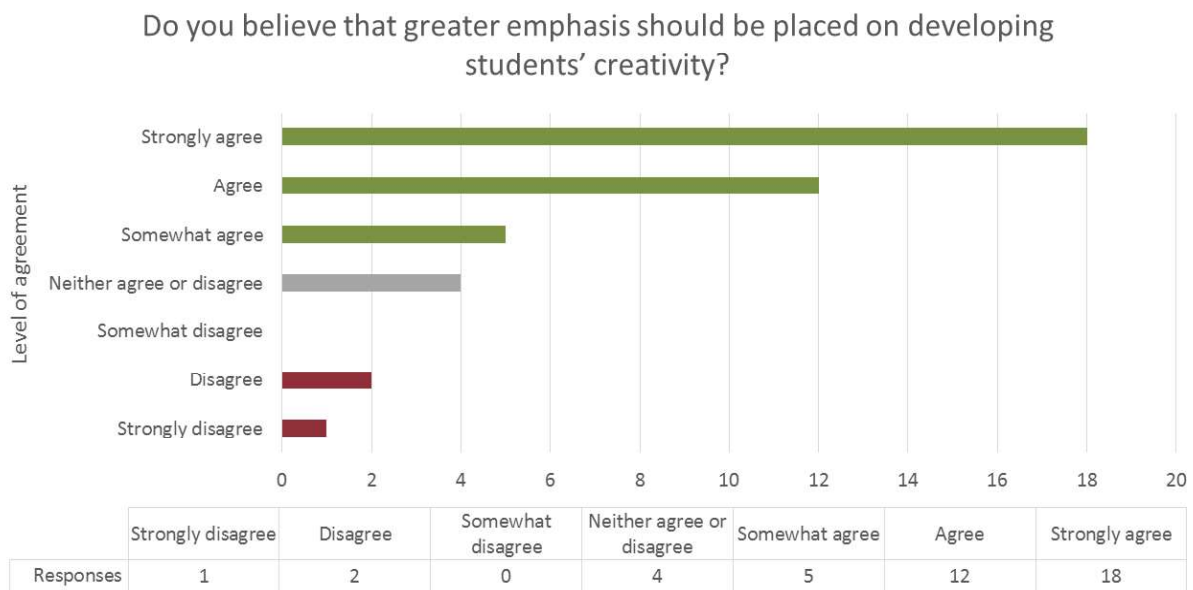


Figure 6: Should greater emphasis be placed on developing student creativity?

It can thus be assumed that this participant intended to select 'strongly agree'. Consequently, if we ignore this anomaly, the percentage of respondents who disagreed with the statement that enough is being done to support creative development is reduced to 5%.

Of the two participants who disagreed that the NC should place more emphasis on creative learning, one provided their contact details for further discussion. As this respondent's perspective did not mirror those of the majority, it was felt it would be of great value to seek an interview with this individual.

Furthermore, in order to gain an understanding of how teachers feel that levels of creative development could be better nurtured, respondents who had agreed with the previous statement were encouraged to explain their perspective further, via a written response.

If you agreed with the previous question, how do you think this can be achieved?

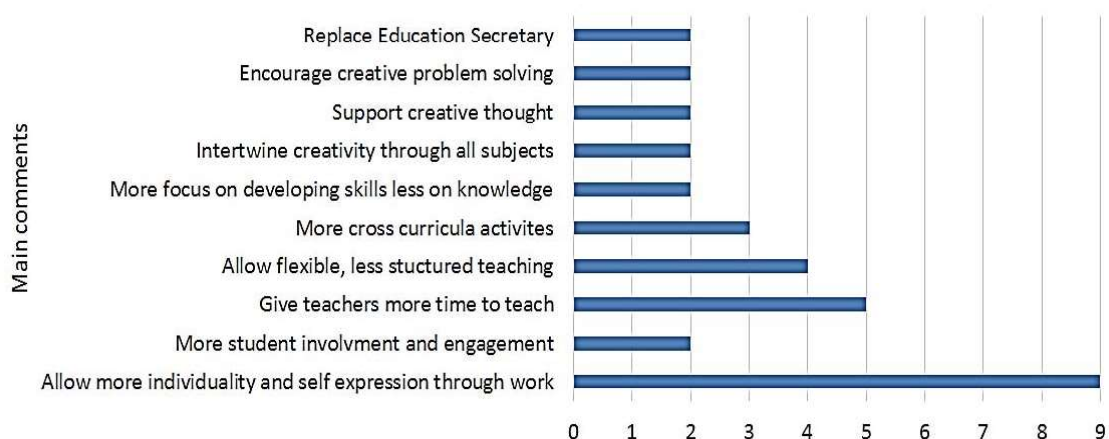


Figure 7: If you agreed with the previous question, how do you think this can be achieved?

All themes that occurred more than once are outlined in Figure 7, and frequently expressed beliefs were that the NC does not accommodate self-expression or individuality through work; rather, the NC 'spoon feeds' students too much: this point was raised in over 27% of all comments. Many teachers stated that the structure of the NC is far too prescribed and rigid, in that student's answers are considered either right or wrong, with little scope in allowing them to experiment and make mistakes. This supports earlier research by McLellan and Nicholl (2013), who reported that one-in-six Design and Technology GCSE students (17%) disagreed that their work encouraged them to think for themselves.

One of the problems in creating a curriculum that embraces individuality is the practicality of measuring 'achievement'. The primary function of schools should be to educate, yet, politically speaking, education has to be controlled and measured through procedures such as league tables and Ofsted reports. By integrating more individuality, marking becomes arguably more subjective. To some, this would create concern, as it becomes harder to compare and contrast students' work when selecting an appropriate grade. This also creates difficulty when teachers have to second mark or peer review, as the interpretation of the marking criteria may differ considerably between teachers.

Another recurring theme was that more time should be allocated for teachers to incorporate creative teaching and learning into lessons; this is usually restricted by the pressure to cover a large syllabus. Ten per cent of comments mentioned that the introduction of more cross-curricular activity would be an effective way of encouraging creative potential, as illustrated by this respondent's answer:

'Being more flexible with the curriculum, placing more importance on the skills that they need to learn is becoming more cross curricular, giving teachers more time and support to develop as creative teachers'. – Anonymous respondent H (2014).

By implementing more cross-curricular activities, teachers could inject further creative development into lessons without the need to totally restructure the curriculum; for example, students could use mathematical formulae or theoretical scientific principles to design and make a product in a Design and Technology class. Linking subjects together may generate higher levels of engagement and interest, in addition to creating a better foundation of knowledge.

e. Barriers in Developing Students' Creativity within the UK Secondary National Curriculum

This question required a solely qualitative answer and participants were encouraged to be open and thorough in their description of the barriers they faced in attempting to develop student creativity. This question had the joint lowest response rate, yielding only 34 out of a possible 42 responses. The coded results are displayed in Figure 8.

Barriers for developing students' creativity within the National Curriculum

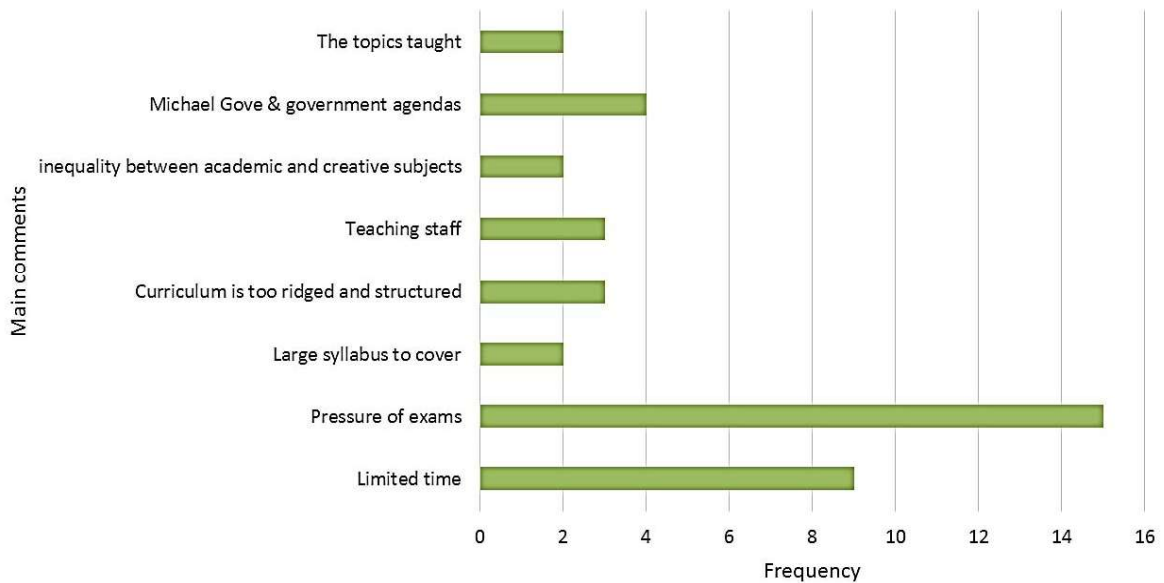


Figure 8: Barriers in developing students' creativity within the National Curriculum

It is apparent that there were two key elements that caused conflict, in terms of attempting to enhance creative development through teaching: pressure of exams and limited teaching time. Thirty-eight per cent of all comments stated that exams dominated teaching time, leading to creative development being pushed to the bottom of teachers' hierarchy of priorities, as illustrated by the following comments:

'Pressure on teachers to get students through exams and pressure on students to pass. This restrictive and structured approach allows no room for creativity'. – Anonymous respondent I (2014).

Exam pressure was generally linked to comments relating to constraints on teaching time. Twenty-three per cent of teachers stated that there was little time available for developing student creativity, as below:

'Lack of time available, too much focus on exams and exam techniques, the constant need for evidence of progress' – Anonymous respondent J (2014).

The only way to provide more time for teachers to introduce creative learning into schools is by reducing their workload, which in turn requires the syllabus to be reduced. It may be disputed that, by reducing the syllabus content, students will leave school having gathered less knowledge, which would be to their detriment. However, it may be argued that, by reducing the quantity of topics, more time and focus could be spent on solidifying knowledge by going into greater depth on fewer topics, rather than simply scraping the surface of many. The best approach cannot be established without further research.

f. Creative Development through Creative Extra-Curricular Activity.

Teachers were asked if their school provided any opportunities for developing pupil creativity outside of the UK Secondary National Curriculum. This question was asked in order to identify whether some schools placed greater importance on creative development and, if so, whether this was done to compensate for an achievement-driven curriculum.

Just under 60% of teachers stated that their school went beyond the NC guidelines in offering optional activities to enhance student creativity and there appeared to be a distinct conflict in responses regarding whether schools supported or discouraged extra-curricular activities. Some schools offered a wide spectrum of activities targeted at students with varying abilities and interests, as is evident in the following comment:

'Yes. There are a number of extra-curricular clubs ranging from sport to DT to STEM. The options are there and it is the students who take these opportunities who are already showing that they want to do more and achieve more than by just following the instructions' – Anonymous respondent K (2014).

Nevertheless, other teachers were highly critical and negative about their school's provision of extra-curricular activities, as in the comment below:

'No. We are party to the same government bureaucracy as any other school. Until OFSTED stop trying to take individualism out of teachers and making them all clones of their agenda, then it will never change' – Anonymous respondent M (2014).

Discussion

In the questionnaires, only two respondents disagreed that the National Curriculum should do more to encourage creative development. One of these participants, referred to as Respondent X, provided their contact details. As this participant disagreed with the views of the majority, it was felt it would be interesting to set up an interview, in order to discuss their views in greater detail, and the interview highlighted various interesting points (see appendix B for a full transcript of the interview).

In the survey, Respondent X had stated that creativity in schools is moderately important, as it allows some students to engage within lessons; they also mentioned that some students enjoy being creative more than others. It may be assumed that this participant acknowledges some value in encouraging creative development; however, they disagreed that the NC should do more in aiding such development. An interview was conducted in order to provide the respondent with an opportunity to expand upon the answers they provided in the questionnaire.

Respondent X highlighted various interesting opinions, such as:

- There is a fine line between creative teaching and letting children run riot
- Some subjects do not lend themselves to being taught creatively
- Some students thrive in creative situations, while others do not. This could disengage some students.

Respondent X's final point is thought-provoking, as it contradicts the views of the majority of other teachers surveyed. Many teachers view creative learning as a means of allowing less academically gifted students to learn in a more engaging manner, accommodating students of

varying learning styles and abilities. However, Respondent X suggests that, in increasing levels of creative learning, those who struggle with creative tasks may become disengaged.

Atkinson (2004) indicated that there were 'relatively few creative individuals' (p.1) amongst GCSE students. Consequently, if we are to assume that Respondent X is correct, many students may feel less engaged in class. Alternatively, one might argue that there are few creative individuals because the presence of creative development is low, if not non-existent; thus, this form of education could help to develop more well-rounded students.

In response to the second point raised by Respondent X (that some subjects do not lend themselves to be taught creatively), the interviewee was interrupted. It was explained to them that a number of participants who completed the survey mentioned how increased cross-curricular activities could be used to encourage levels of creativity within subjects that are traditionally less creative. The interviewee was invited to share their view on this and stated:

'I think that is a great idea and probably a good way subjects like maths can be integrated into more creative 'softer subjects'... The downside is it becomes much harder to plan and organise lessons that fit into the timescales of other teachers'.

It appears that Respondent X shares the view that cross-subject activities may be an effective means of integrating creativity into 'more academic' subjects. The interviewee, however, stated that this would be resource intensive, making it much harder to plan lessons, and this supports the findings illustrated in Figure 11. The majority of teachers asserted that the largest barrier to developing student creativity in schools is limited time.

Finally, Respondent X was asked if they had any additional comments and their answer below neatly summarises and confirms the previous discussion:

'There is not a one-size-fits-all approach to teaching; there are always going to be some students that prefer one learning approach to another. However, due to the restraints on teachers' resources, it becomes an impossibility to accommodate everyone's needs. I feel that the NC should be targeted towards enhancing the skill set of the majority. I don't feel that the majority of students are creative or would like to develop creative skills'.

Respondent X evidently believes that, with the current levels of resources available to teachers, certain compromises have to be made. The NC should be structured to support the majority of students; however, the participants' perspective of the suitability of the current curriculum was entirely based on the belief that the majority of students are not creative and that they would not like to develop creative skills. This view strongly contradicts that of the vast majority of teachers surveyed.

Conclusion

This research has addressed a number of previously unanswered questions and has identified clear conflict between how teachers feel they should educate and how the National Curriculum dictates they should teach. The vast majority of respondents (88%) supported creative development, as they viewed this as an integral part of students' education. Only 5% asserted that the NC currently does enough to support this development.

It is evident that changes need to be made to the structure of the NC and to its priorities. Indeed, this research has established potential ways that the NC could be reformed to support creativity. The majority of participants' views revolved around less focus on targets and

academic pressure, thus reducing the likelihood of teachers simply 'teaching to test' and allowing them more time to focus on harnessing the skills and knowledge of students. This research does not aim to provide all the answers as to how this could be achieved in practice; it merely identifies the concerns.

Unfortunately, it has been identified that there is no existing singular teaching method or guideline that can accommodate the needs of every student and that creative learning/teaching is not appropriate for everyone. However, for those who are better stimulated using a creative approach, there should be more support through the NC. The generally-accepted method of achieving this is a reduced focus on academic qualifications and the allocation of more time and resources in allowing teachers to educate in an exciting and stimulating way.

This research has provided empirical evidence that supports the majority of previous researches within this area. It is evident that the current education system is grounded in a 'teach to test' culture, where many students and teachers alike are disengaged from a rigid and prescribed curriculum. Thus, greater emphasis must be placed on '*fulfilling the needs of the "whole child"*' – Anonymous respondent N (2014).

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