*Concept Paper*

# Conceptualising Creativity and Innovation in the Role of Primary Sector Headteachers

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**Abstract:** Schools and policy makers face common challenges driven by external affairs such as economic uncertainty, globalisation, and advances in technology. Rapidly changing educational, societal, and political systems require school leaders to adopt creativity and innovation (Cr&Inn) as an integral feature of their leadership. To understand what Cr&Inn means to those in primary sector headteacher positions, this conceptual paper explores the following questions: How is Cr&Inn defined regarding headteachers within the primary sector? What are the key characteristics of Cr&Inn regarding primary sector headteachers? We incorporate a systematic literature review along with definitions from primary sector headteachers drawn from interview data. Whilst Cr&Inn remain conceptually complex, we provide clarity by proposing a succinct definition and recognising the key characteristics involved which in turn, has the potential to strengthen effective leadership to improve learner outcomes through overcoming unusual challenges. We conclude with a discussion of how misconceptions may negatively influence creative and innovative practices, yet we recognise that Cr&Inn have much to offer those in such dynamic and accountable roles, globally, particularly in times of uncertainty. Through our identification of the characteristics, we provide school leaders and policy makers with a framework to understand what Cr&Inn entails.

**Keywords:** creativity; innovation; schools; primary; headteachers; leadership

## 1. Introduction

Globally, school leadership has become a crucial component of policy agendas, which is arguably due to the competitive nature between different national education systems, for example, league tables and shifting global socio-political landscapes [1]. Schools across the globe also face many challenges brought about by factors including rapid technological advances, globalisation, economic uncertainty, marketisation of educational systems [2–4], and more recently, a global pandemic, all of which strengthen the need for creativity and innovation (Cr&Inn). Alongside Cr&Inn, 'problem solving..., critical thinking, collaboration and communication' are recognized as valuable leadership skills, coupled with modelling to others to 'take risks, think innovatively, and collaborate' [5] (p. 1). It seems that the concepts of Cr&Inn are somewhat linked somehow as well as attracting other features which may be inherent in one or both concepts. Without a clear understanding of what Cr&Inn entails in school leadership, we may be at risk of overlooking essential features. Therefore, the need for a greater understanding will not only benefit headteachers in their knowledge and leadership enactment, particularly, when facing 'unprecedented problems' (ibid.), but it will also aid policy makers to clarify expectations in relation to their requests for creative and innovative headteachers. From our exploration, it has become clear that there is a gap in the literature that raises the need for this study to conceptualise Cr&Inn in the role of primary sector headteachers.

Drawing from Hammersley-Fletcher and Brundrett [6], we use the terms *headteacher* with reference to the person who is ultimately held accountable for a school's performance.

We acknowledge others may use the term school principal. Regardless, there is no doubt that the role of the headteacher has changed and expanded over the years. The outdated hierarchical school management system is considered too narrow for the complexities of today's society [7]. A broader, community-minded approach where building relationships across internal and external contexts are deemed central to the role. Ultimately, the headteacher must be flexible, responding quickly to external challenges and demands for accountability [8–10]. Nevertheless, attempting to define the role of the headteacher succinctly is problematic, research [1] reports there are over 200 definitions and 70 classifications for leadership in general terms. Despite this, headship is considered to 'mean a social process that produces commitment, alignment, and direction' (p. 7), a definition which we also adopt.

At the heart of the headteacher's role is the need to improve all children and young people's learning and enhance their outcomes [11]. For many system leaders, such as political and national leaders, school improvement has been a dominant feature of many educational reforms since the 1970s [12] and is often synonymous with pupil attainment. As such, school leaders are required to continuously generate evaluative school data where school leaders are 'experiencing an era of data' [13] (p. 420). As a result, 'school leadership for improvement needs some rethinking' (p. 149), whereby the concept extends beyond pupil outcomes to incorporate broader impact brought about by change [14]. Indeed, this connection is also demonstrated by Murphy and Torre [15] who merge school leadership and school improvement by defining school improvement leadership as influence, direction, motivation, and improvement strategies which includes, and goes beyond attainment metrics; it is this perspective which underpins our review.

To meet today's societal and educational demands, there is a need for Cr&Inn to become the modus operandi for schools to prosper [16]. Yet, tension arises through the need to balance Cr&Inn with accountability [2,3], particularly when considering the high stakes of school improvement and learner outcomes. Tyagi et al. [17] highlight this tension foremost because Cr&Inn is often viewed as risky, yet they conclude that creative individuals are more likely to take social risks, where they are willing to 'challenge the norms' (p. 2), rather than in domains related to ethics, health and safety, and financial. Drawing from the broader literature, many definitions for Cr&Inn centre on novelty and value [18]. Additionally, Stoll and Temperley [19] signpost commonly associated characteristics such as risk-taking; experimentation; problem-solving; and collaboration.

When fostering Cr&Inn, the leader is potentially the most crucial element [20]; leadership for Cr&Inn is twofold. First, the enactment of the leader's Cr&Inn, and secondly, the leader nurturing Cr&Inn throughout the school. For headteachers, the promotion of Cr&Inn is a 'fundamental challenge' [19] (p. 65). Therefore, we must also consider Cr&Inn from the perspectives of headteachers to explore this further.

Schools across the globe are required to navigate the ongoing policy initiatives driven by local and national governments [21], alongside experiencing an ongoing increase in the diverse needs of pupils and their families. As noted by the OECD's Secretariat [22], these require headteachers to embrace the complexities of the environment, the need to think differently, and take risks. To enable those at the local level to respond promoted school staff will 'have to be flexible, bold and creative if they are to continue to serve young people well' [23] (p. 16). In other words, headteachers require Cr&Inn.

Whilst some scholars and policy makers identify the need for Cr&Inn to be part of a school leader's role, there is little to suggest what this entails. This paper intends to explore the meaning of Cr&Inn in relation to primary sector headteachers.

## 2. Materials and Methods

We commence our conceptualisation with a systematic literature review by exploring a decade of peer-reviewed journal articles. Following our interim analysis of the literature review papers, we noted that creativity takes the early phases of Cr&Inn where it forms the initial ideation and change processes, and innovation occurs when the creative output is

implemented and adopted. Therefore, to enable us to provide a more robust definition and identify the key characteristics of the two highly related concepts, we decided to question the meaning of the first stage (creativity) through 11 semi-structured interviews with headteachers located in public sector primary schools across Scotland. This second sub-study was independent of the first as we were seeking the headteacher's self-made views. From our literature review and interviews, we define Cr&Inn as: *a carefully orchestrated effort to generate novel ideas, processes, and products that are of value to the school or system, leading to enhanced pupil outcomes and life chances.* As a result of this study, we also present the key characteristics of Cr&Inn, such as collaboration, networking, problem-solving, and risk-taking in a conceptual framework.

*2.1. Systematic Literature Review*

For this phase, we adopted processes recommended by the Evidence for Policy and Practice Information and Co-ordinating Centre [24] to establish a reliable strategy and ensure that transparency and objectivity are maintained. For ease, Figure 1 shows the steps taken during the literature search phase:
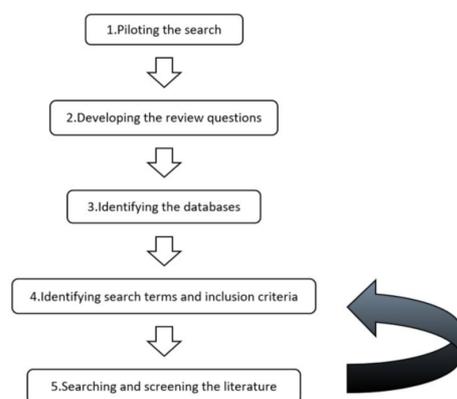


**Figure 1.** Illustration of the series of actions taken during the literature search phase.

Following a pilot study, we used the work of Davies, et al. [25] to guide the design of the following three review questions:

What empirical evidence is there in the peer-reviewed literature...

1.  concerning Cr&Inn of headteachers within the primary sector?
2.  to define Cr&Inn regarding primary sector headteachers?
3.  to determine the key characteristics of Cr&Inn regarding primary sector headteachers?

We utilised the databases: ASSIA, Scopus, EBSCOhost, and Web of Science/Knowledge; and the truncated (8) terms: creativ*, innovat*, school leaders*, heads*, headteach*, principal*, primary, elementary, kinder*, and education*. Three inclusion criteria were used to define the scope and focus of the search:

(1)  Peer-reviewed journal articles published between 1 January 2010 and 31 December 2019 (inclusive) so that we capture an entire decade and reflect contemporary thinking and practice;
(2)  Related to Cr&Inn;
(3)  Includes primary sector headship.

To maintain objectivity, we followed processes advocated by Hallinger [26] to screen the abstracts and grade to a set of three criteria:

- Original, empirical studies;
- Relevance to the discipline/sector;
- Relevance to the search theme of creativity and its associated characteristics recognised from the wider literature, e.g., risk and collaboration.

Only papers which met all three criteria were used. After removing duplications and undertaking abstract screening, studies were scrutinised for topic relevance and then appraised for rigor using judgement criteria similar to published criteria [25] (p. 36):

- Methodological quality;
- The justification for decisions taken, evidence of reliability and/or validity measures;
- Research questions stated alongside relevant methodology.

Using a flow diagram adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [27], Figure 2 gives the number of journal articles at each stage:
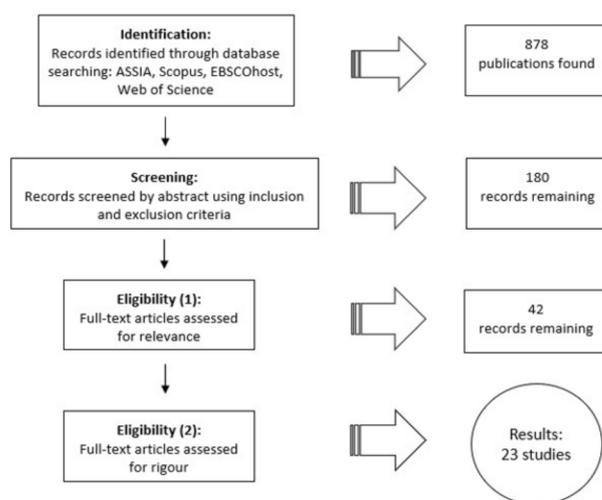


**Figure 2.** Adapted PRISMA [27] flow diagram to show the literature search and selection processes coupled with the outcomes at each stage.

Overall, 23 peer-reviewed papers published within the decade commencing from 2010 provided empirical evidence concerning headteacher Cr&Inn within the primary sector (Table 1). Of the 23 studies, eight were exclusively set in primary education and fifteen studies were undertaken in the primary sector plus at least one further educational phase or the education phase was not explicitly disclosed. We took the decision to analyse all 23 studies as they included evidence of primary sector headship.

*2.2. Semi-Structured Interviews*

Although the findings from the literature review provided us with a strong foundational understanding of Cr&Inn, to strengthen this further, we felt that it was also necessary for us to understand how headteachers defined creativity, which from the literature, was deemed as the first stage underpinning innovative outcomes. The data for this paper were drawn from a larger study, where 11 semi-structured interviews were carried out with headteachers of government-funded Scottish primary schools. Institutional ethical permission was granted (E2017-17) and all participants provided consent. For the purpose of this paper, we draw from two interview questions:

1. Could you please tell me how you would define creativity in school leadership?
2. Do you think that certain skills/behaviours/attributes are required to be considered as creative?

As noted previously, creativity was found to be the first stage of Cr&Inn, therefore, we decided to focus on this component at this point as the innovation (implementation and adoption) is to be explored at a later stage.

**Table 1.** Literature search findings in two classified sections of primary and primary plus further phases, OR undisclosed.

| Education Phase | Author/s and Date of Publication | Location |
|---|---|---|
| Primary | Moolenaar et al. (2010) | Netherlands |
| | Pegg (2010) | UK |
| | Anderson and White (2011) | Australia |
| | Hameiri, Nir, and Inbar (2014) | Israel |
| | Moolenaar and Sleegers (2015) | Netherlands |
| | Heiβenburger (2016) | Austria |
| | Samriangjit, Tesaputa, and Somprach (2016) | Thailand |
| | Wang, Chen, and Neo (2019) | Singapore |
| Primary Plus | Anderson-Butcher et al. (2010) | USA |
| | Thomson and Sanders (2010) | UK |
| | Thomson et al. (2013) | UK |
| | Beabout (2014) | USA |
| | Sider and Jean-Marie (2014) | Haiti |
| | Daly et al. (2015) | USA |
| | Mifsud (2015) | Malta |
| | Keamy (2016) | Australia |
| | Kershner and McQuillan (2016) | USA |
| | Toytok (2016) | Turkey |
| | Vennebo (2017) | Norway |
| | Leithwood (2019) | Canada |
| | Lemos and Liberali (2019) | Brazil |
| | Mayayo et al. (2019) | Spain |
| | Wang (2019) | China |

*2.3. Data Analysis*

The resulting papers of the literature search and the semi-structured interviews were separately analysed through a systematic inductive approach utilising Nvivo version 12 and following Bazeley and Jackson's [28] guidance to identify the key themes. Example categories identified in the literature review included themes such as novelty, value, networking, collaboration, problem-solving, risk-taking, disrupting the status quo, and openness. The categories identified from the headteacher interviews included examples such as arts, novelty, value, risk, open-minded and flexibility. The characteristics from each were then compared. We merge the findings and discussion from the two sub-studies in the next chapter.

**3. Results and Discussion**

*3.1. Defining Creativity and Innovation in Primary Sector Headship*

When asked to define creativity, this was not an easy question for many of the headteachers, some audibly stated this when asked to do so. For example, 'Oh crumbs, that's not an easy question to answer' (Nic). Others took time to formulate their answers. This response is perhaps not surprising when considering the lack of clarity found in the literature. From the literature review, six studies provided explicit definitions for Cr&Inn [29–35]. Toytok [33] (p. 173) notes novelty in her general definition for innovation as 'a new idea, product, service or system'. Sider and Jean-Marie [32] extend this to define innovation as disrupting the status quo. Whilst Wang [35] uses Chu [36] to define creativity, the definition rapidly turns to innovation: 'creativity stands for non-conformity, innovative consciousness and abilities, and world-changing innovative behaviours' (p. 332). Thus, giving little meaning to creativity nor innovation. Although Moolenaar et al. [30] provide some clarity by suggesting that creativity is the first stage of innovation, they provide no indication where creativity ends, and innovation commences.

Within the literature, we also noted an emphasis being placed on process and product when defining Cr&Inn. For example, Lemos and Liberali [37] identify creativity as a process involving transformation activities and the production of new outcomes. Similarly, Wang et al. [35] also identify innovation as a process regarding school-based curriculum design, whereas Anderson-Butcher et al. [38] consider process which includes new protocols, routines, and operational procedures; and, product innovation, involving new programs, services, and structures. Akin to this, Keamy [29] (p. 158) suggests creativity as four orientation responses which also indicates both process and product depending on the feature's orientation:

- Action-oriented, e.g., problem-solving;
- Emotion-oriented, e.g., freedom of expression;
- Skills-oriented, e.g., the producing something unique;
- Thinking-oriented, e.g., alternative thinking.

From these definitions, it appears that while the two expressions are undoubtedly closely related, without cogent transition points between the two, it is reasonable to assume that the interchangeable and ambiguous nature of Cr&Inn will continue. Nevertheless, whilst the debate surrounding process and product initially blurred the boundaries of Cr&Inn, we can now identify that creativity is associated with the initial thought processes and ideas, whereas innovation is the transformation of these ideas into a product.

Similarly, novelty was a strong theme in the interview data. Yet, the headteachers also emphasised the need for being of value to the school in their definitions. This holds some alignment with our findings from the literature search (e.g., Toytok [33]) and the broader literature (e.g., Amabile [39] where creativity is seen as 'the production of novel and useful ideas') (p. 126). The interviewee's comments surrounding value was perhaps of little surprise as it would be difficult to understand why a headteacher would champion something new if they did not consider it to be beneficial for the school community. This was evident in Jim's response:

> *I suppose I come to it in terms of your thinking, your own personal skills; creative thinking around what you feel fits into your school environment, what you think will fit into your school community, and what you think will ultimately fit to meet the needs of your young people.* (Jim)

The importance placed on novelty and the best fit (value) in terms of their context was not an unusual line of thought, for example:

> *I suppose in the definition of creativity, I would be looking for ways to just being open to new ideas and looking for new things that we can adapt and change to suit our context.* (Gayle)

One headteacher commented on the need for a clear rationale for any new approach that the leader puts forward so that the staff would know that the change is not just '*a passing fad*' (Don). Thus, negative connotations can embroil the notion of novelty when there is a potential to perceive it as gimmicky, particularly in a school environment where there is a continuous influx of initiatives in response to the external challenges and demands for accountability [10,40].The broader literature suggests that the success of Cr&Inn is often reliant on leadership, those who lead for creativity alongside leading creatively through influence, modelling creativity, encouraging experimentations, and establishing the conditions for Cr&Inn [29,41,42]. Six studies suggested that the headteacher is no different in fostering Cr&Inn than leaders from contexts beyond the school environment [29,30,32,35,43,44] yet only two articles explicitly define Cr&Inn in school leadership. First, Sider and Jean-Marie [32] (p. 264), suggest this as 'changing the conditions of teaching and learning for students and teachers that lead to better schools and education systems'. Second, Keamy [29] who draws from Stoll and Temperley [19] (p. 66):

> *. . . an imaginative and thought-through response to opportunities and to challenging issues that inhibit learning at all levels. It is about seeing, thinking, and doing things differently in order to improve the life chances of all students. Creative leaders also provide the conditions, environment, and opportunities for others to be creative.*

While Gayle (above) seemed to see her position as the one seeking the initial ideas, Kirsty defined Cr&Inn in school leadership as being open to new ideas proposed by others.

> *I think it's about leading other people so that they can be creative if they come up with an idea. Also, if it's one that opposes the one that you were thinking, you think, well would their idea work better? And going with it and seeing what works.* (Kirsty)

Kirsty's comment regarding leading others is one that not only resonates with Stoll and Temperley's [19] thinking regarding creating the conditions for others to be creative and innovative, it also aligns with Keamy [29], who suggests similar by way of leading for Cr&Inn. Keamy (ibid.) also recognises the requirement for school leaders to model creativity and be actively engaged throughout the process which did not seem to shine through the interview data at this point.

An Artistic Concept?

Artistic features appeared in several comments given by the headteachers either directly, or indirectly as examples in various forms such as drawing, painting, drama, music, and dance. Yet, art does not typically define creativity or vice versa [39], nor are they mutually bound [41]. In the following excerpt, Kate sandwiched an artistic illustration of creativity between typical leadership concepts such as influencing others:

> *I think that you're looking at as many different ways to get people on board with you. So, for instance, I have one of my staff who was previously an art teacher, so she's very interested in expressive arts. She's done a creativity summer school, and this is something that she really wants to take forward, and I feel that she's got better knowledge than anybody, so she's actually going to put on an input for the school. So, for me, as a leader of the school, it's me allowing her that opportunity and encouraging her to take that forward.* (Kate)

Equivalently, Mark also discussed creativity from an artistic sense and indicated what this meant in terms of leadership, such as recognising creative and artistic talent:

> *I wouldn't necessarily be creative in the sense of beautiful displays and artistic things. . . but I would be quite good at spotting people who could do things well and then allowing them the freedom to do that.* (Mark)

While Kirsty acknowledged that creativity is not necessarily an arts-based concept, she did not provide an alternative:

> *I always think that when I hear the word creative, I'm not terribly creative and I'm not artistic or musical, and I always think about it being in expressive arts, but it's not.* (Kirsty)

Viewing creativity in an artistic sense is an interesting one. If there is a perception of headteachers not perceiving themselves as artistic, there is a potential for them to shy away from creativity in its broader sense. This, therefore, strengthens the need for clarity around the concepts of Cr&Inn and their inherent features to 'guide, facilitate, and inspire others to develop' 21st-century skills [5].

### 3.2. Emerging Characteristics

Researchers, such as Stoll and Temperley [19], raise awareness of typical Cr&Inn characteristics; similarly, we also identified a range of characteristics in our study: networking and collaboration (including trust, knowledge flow, and groupthink); problem-solving; disrupting the status quo; risk-taking (including failure and experimentation); and, openness (including flexibility and adaptability). Most of the characteristics stemmed from the literature rather than the interview data, which is reflected in the ensuing sections.

3.2.1. Networking and Collaboration

The two most notable characteristics of Cr&Inn found in the studies were networking and collaboration. Through a pilot study to leverage community partnerships and, drawing from various stakeholders, Anderson-Butcher et al. [38] (p. 284) demonstrated the benefits gained via partnership-centered approaches. They concluded that collaborations increase community learning resources through Cr&Inn thinking and actions. Furthermore, through a small-scale case study, Sider and Jean-Marie [32] confirmed that a lack of collaborative opportunities acts as a barrier to Cr&Inn. This is perhaps not surprising when healthy collaboration and networks consisting of willing members and trust are capable of producing creative ideas and productive interaction across different groups and teams [42]. Thus, there is a need to connect and work with others for effective Cr&Inn.

For some studies, networking and collaboration were identified as the principal themes leaving only a small alignment with Cr&Inn. For example, Leithwood [42] reports on a mixed-methods study drawing from school and district leaders (*n* = 283) to explore how networks contribute to the professional capacity of headteachers through increased exposure to alternative ideas, viewpoints, and practices, both individually and collectively. Still, innovation is raised at various points throughout the paper. Additionally, Mayayo et al. [43] consider collaborative networks as innovative through promoting intersectional cooperation. Although the mixed methods study (*n* = 171), draws from a range of professionals across the school community, they conclude that networks aid opportunities to innovate. Likewise, Lemos and Liberali [37], draw from a range of school stakeholders to examine the impact of the Creative Chain project to provide an alternative to top-down management, they conclude that the collaborative project endorsed community involvement to create and share meaning to produce something novel. Despite these two studies drawing from a range of participants beyond, but including, headteachers, they provide some evidence highlighting the benefits to Cr&Inn brought about by networking and collaboration.

Additionally, two papers considered network positionality. First, Moolenaar et al. [30] investigated two areas: innovative climates and how centrally positioned the headteacher was within the network might impact the climate. By studying one school district (*n* = 753) they concluded that the climate is more likely to be innovative because of the leader's centrality within the network. Second, Daly et al. [44] utilised social network analysis to explore the impact of positionality and negative social ties of school leaders: in this instance, between headteachers and their associated district office (*n* = 78). The authors first conclude that difficult social ties are likely to be a result of perceptions related to trust and efficacy; without high levels of both, there would be little support for innovation. Second, opportunities for joint learning, thus enhancing knowledge, are required to reduce the potential for negative relationships between school leaders and the district office.

Whilst the headteachers were referring to others (e.g., teaching staff) in their responses when defining creativity (previous section), networking and collaboration were not explicitly stated nor emphasised within their definitions. This lack of discussion may be due to these characteristics forming part of the headteacher's day-to-day work rather than being viewed as part of Cr&Inn per sé.

Trust

Another noteworthy networking and collaboration feature conducive to Cr&Inn within schools was 'trust' [34,35]. Yet, trust requires the luxury of time rather than a matter of weeks to develop [45] alongside the need for democratic practices [41]. Moreover, Mifsud [46] notes that by fostering trust, networks allow knowledge to flow through the provision of space where individuals can reflect, inquire, and challenge, thus increasing the opportunity for Cr&Inn. Conversely, Sider and Jean-Marie [32] highlight how a lack of trust results in a reluctance to share innovative ideas impedes practice. This professional trust was also highlighted in the interviews by Kate, but she highlighted the need for self-trust before sharing new ideas:

> *You have to put trust in your own ideas of what you're going to put forward and really*
> *know the aim of what you're trying to achieve and being true to that.* (Kate)

Thus, professional trust (internal and external to the individual) is a requirement for effective knowledge flow across a network.

Knowledge Flow

Several papers commented on knowledge flow to enhance Cr&Inn by capturing and sharing collective knowledge within and across networks. Drawing from social network analysis, Moolenaar and Sleegers (2015) investigated knowledge flow and the networking positions of school leaders across schools and districts ($n$ = 708) in the Netherlands. Although the authors do not provide direct data on any correlation between knowledge flow, network position, and Cr&Inn, the results infer that those who occupy a central location are suitably placed to enhance the dissemination of knowledge within their school and across the district. However, while Samriangjit et al. [47] suggest that obtaining and sharing new knowledge is crucial for problem-solving, this requires a network built upon a collaborative and trusting culture. Additionally, increasing collective knowledge can be problematic due to time and access issues [48]. Under these circumstances, Pegg [49] advocates using virtual connections to overcome some of the difficulties.

Groupthink

A potentially dampening feature of networking and collaboration in terms of Cr&Inn was groupthink; a phenomenon that occurs when there is consensus rather than diverse thinking within the group (Cleary et al., 2020). According to Thompson (2003, p. 99), where groups or teams 'act as a norming device' and ideas become habitual, this results in conforming, homogenous members. Previously, Amabile (1998, p. 83), argued that although homogenous teams will determine solutions more quickly and harmoniously, they will stifle Cr&Inn because 'everyone comes to the table with a similar mindset, they leave with the same'. Overall, networking and collaboration require a trusting, diverse environment where knowledge and ideas are shared, reflected upon, and challenged to afford the best opportunities for Cr&Inn.

### 3.2.2. Problem Solving

Creative thinking is often related to unorthodox ways of approaching problems where thought processes steer us to unique solutions (Amabile, 1998). From the interview data, the need to move away from the norm was evident in Don's definition of creativity where he discussed, alternative thinking:

> *I suppose it's been able to think outside the box a little bit to ensure that whenever we're*
> *planning as school leaders... we wouldn't necessarily stick to templates which have been*
> *used and tried and either thought to be successful or unsuccessful before regardless.* (Don)

Problem-solving was a common feature in the literature review. Vennebo [50], drew from teams ($n$ = 10) who were taking part in a larger national project aimed at enhancing the teaching of ICT. The author differentiates problem-solving leadership through two different trajectories (i) pragmatic and (ii) open-ended, both of which favor obtaining practical solutions. Anderson-Butcher et al. [38] highlight technical issues where both the problem and associated solution are already known; this holds similarities to Vennebo's [50] pragmatic direction. Whereas Samriangjit et al. [47] (p. 43), refer to 'complex citizen problems' where a single solution is unlikely or is challenging to find. Although Samriangjit et al.'s [47] work appears similar to Vennebo's [50] second trajectory of an open-ended nature, the difference here is in the leadership where the leader encourages novelty when problem-solving. Wang [35] draws from Intellectual Stimulation, which also relates to novelty in that headteachers encourage staff to 'think about old problems with new ideas' (p. 333). This notion resonates with Gayle's thoughts, yet she takes it a step further and considers the potential learning from the experiences:

> *I suppose going back to that question at the beginning about what I thought creativity is, it's a bit of problem-solving; we're going to try something, and if it doesn't work, we're going to change it, we're going to look at it, we're going to move forward, and we're going to learn from it.* (Gayle)

The findings in this section highlight the headteacher as being central to promoting a conducive environment open to Cr&Inn.

### 3.2.3. Risk-Taking, Experimenting, and Failure

Gayle's comment above suggests an element of risk-taking, experimenting, and potential failure. Risk-taking, defined as experimenting and 'challenging existing paradigms', is often considered implicit to Cr&Inn I [29] (p. 154). Ruggiero [51] puts forward the notion that creative individuals are more inclined, to be adventurous and prepared to take intellectual risks. Risk-taking and experimentation are also closely associated with failure [30], but in high-stakes environments such as schools, an experimental approach requires a degree of courage [41]. Although only one school was involved in Wang et al. [34] for Cr&Inn to flourish, encouragement was needed to enhance experimentation alongside reducing bureaucratic tension through what the authors term 'innovation-bureaucracy balance' (p. 340). Returning to Gayle, interestingly, she also addressed risk, a comment that is quite understandable as any headteacher would not wish to see attainment being affected negatively.

> *It's a risk to try and do something new or try and do something else unless you can be absolutely certain that it's not going to affect attainment... I think the biggest barrier to creativity is, what if it's a mistake? What if it doesn't work? What if this has a detrimental effect? But in fact, we should be thinking, but what if this has a positive effect?* (Gayle)

Mark also puts forward a similar view but emphasises the need for confidence:

> *I think from a leadership point of view, I think you've got to be prepared to let your people do things differently, and you've got to have the confidence to allow people to do that, and you've got to have the willingness to allow the potential for failure and success. So, I think from a leadership perspective; it definitely means that you have got to take a risk and have the confidence to accept it if it goes well or if it doesn't go well.* (Mark)

Some of this confidence could stem from experience and knowledge, including that obtained through continuous professional development. However, Pegg's [49] small-scale study consisting of five primary headteachers learning to lead, indicated that creative and collaborative learning practices were perceived as high risk even when these concepts materialise from national leadership programs. These findings also hold similarities to Getz and Lubart's [52] thinking who suggest that although training enhances Cr&Inn, many people or organisations opt to undertake traditional methods rather than creativity training as the former has less risky returns and can focus on short-term requirements rather than long-term benefits. If early career headteachers consider ways of learning as risky, questions are needed around the impact of this in terms of their willingness for Cr&Inn approaches. That said, the timetable presented in Pegg [49] does not indicate any teaching around risk, whereas Samriangjit et al. [47], who also explore training needs for primary headteachers, demonstrate a clear thread of risk-taking running through the entire module. Therefore, when considering Cr&Inn training, risk must be appropriately and specifically addressed, not only this, but the system needs to encourage headteachers to take intellectual risks [51] to overcome unprecedented problems.

Finally, where risk-taking was evident, it generally returned us to knowledge flow, networking, and collaboration. For example, Hameiri et al. [53] highlight a decrease in role risk when challenging existing structures for those who have sufficient knowledge. Mifsud [46] (p. 239), suggests that networks distribute risk by providing 'a testbed for new ideas'; and, Lemos and Liberali [37] note risk-taking involves everyone in the collaboration. Once again, we see the importance of the environment and the social arena. This

relationship is perhaps not surprising when returning to Tyagi et al.'s, [17] thinking around creative individuals taking social risks rather than in domains such as health and safety.

### 3.2.4. Openness

According to Amabile [54], creative thinkers tend to be more open-minded and flexible in thought. Yet, during times of uncertainty and in complex environments, the tolerance threshold of creative thinkers is generally higher than individuals who are more cautious in thought and view situations from limited perspectives [51]. Dawson and Andriopoulos [55] suggest that individuals who have an increased range of perspectives are less inclined to be governed by habitual constraints and tend to welcome new experiences. Thus, open-mindedness is central to Cr&Inn. Still, only two studies explicitly use the term open-minded [34,35], but this concerns pupils rather than school leaders. Others do, however, relate to being open to ideas [29], open to change [41], or being open to opinions and strategies [48]. Therefore, although there is some evidence of open-mindedness it was one of the weaker characteristics to emerge from the literature review. Whilst being open-minded was evident in three of the interview responses, these were linked with flexibility and being adaptable, particularly regarding context:

> *I think that it's that open-minded and flexibility that is quite key and central for creativity in school leadership'* (George)

> *Being open-minded, adaptable, and willing to try are good things…In my particular area, we tend to jump on the bandwagon though, somebody says it's good in one school, so we'll all try it… I think that you need to be willing to be adaptable because we can't take something that works in one school and completely replicate it in another because the staff and the pupils and the context are different.* (Gayle)

> *Being open to new ideas and being able to think 'well actually we thought we were going to go on this track and through our development, it's actually going off on a different tangent because that's what people have either wanted it or it's what best fits the school'. So, having that kind of flexible approach but being well planned with it.* (Eve)

In essence, within the notion of being open-minded, primary sector headteaching involves being flexible [10] and adaptable to overcome 21st-century challenges [56].

### 3.2.5. Disrupting the Status Quo

To enhance Cr&Inn there was evidence of the need to disrupt the status quo within the literature. Thomson and Sanders [41] present detail on an opt-in Creative Partnership project targeting schools in deprived areas where the aim was to provide support to teachers in their quest for pedagogical change (*n* = 40). Drawing from the same Creative Partnership project, Thomson et al. [57] suggest four discourses that inhibit disruption: curriculum delivery, subject organisation of the curriculum; pupil ability; and low aspirations. From their exploration, the authors recommend that deconstruction and disruption of these four 'taken-for-granted' discourses should co-occur. However, it is likely that teachers will maintain the status quo if leaders do not enable such creativity.

Additionally, through a three-year study, Kershner and McQuillan [48] report that while maintaining the status quo is an attractive state, disruption is a precursor to change. Additionally, the authors highlight that disruption stems from decentralising networks and establishing trust. This thinking aligns with Hameiri [53], who argues that where there is a decrease in control through decentralisation, alongside a trusting environment, the higher the likelihood of disruption. Moreover, control coupled with power, negatively impacts the status quo [30]. While Sider and Jean-Marie [32] and Daly et al. [44] do not raise the issues of power and control, they do suggest that risk-averse leaders are more likely to avoid disruption. Ultimately, and perhaps unsurprisingly, the evidence suggests that those with greater authority in the system influence the willingness of headteachers to disrupt or maintain the status quo, thus ultimately impacting the level of Cr&Inn.

## 4. Conclusions

To enable school leaders to overcome unprecedented problems driven by a myriad of global issues, there is a requirement for headteachers to be creative and innovative. Considering the evidence, it is clear that Cr&Inn are complex and multifaceted. Through undertaking this study, we provide clarity by unpacking the concepts in terms of primary sector headteachers and identifying the associated characteristics.

While the literature review endeavours to synthesise a decade of findings, we acknowledge the inclusion and exclusion criteria may result in incomplete evidence. Similarities are drawn here to that of Hallinger [26] where a different picture may have been yielded through including additional publication types. Therefore, there remains an open question surrounding the application of the conclusion across the sector. Additionally, we view the use of publications where the education phase was uncertain or spanned across different stages as a limitation. As previously argued, we cannot disregard these publications and risk the loss of relevant knowledge. Finally, although the focus of this paper surrounds the headteacher as an individual, it becomes clear from both sets of findings that the headteacher cannot be divorced from a school's internal and external social context. That said, this paper does provide us with an understanding of how Cr&Inn is defined both within the literature and from the perspectives of headteachers.

Although Cr&Inn has continued to gain traction in education, particularly in relation to learning [58], we found limited evidence of this regarding primary sector headteachers. A growing number of scholars have attempted to understand the foundations of Cr&Inn, yet the nature of the concepts made this a challenging undertaking. Trying to pin down the meaning of Cr&Inn seems characteristically paradoxical, particularly in affairs related to headship where the entangled features of change and school improvement are often associated with accountability.

As a result of this work, we propose a definition of Cr&Inn in headship as *A carefully orchestrated effort to generate novel ideas, processes, and products that are of value to the school or system, leading to enhanced pupil outcomes and life chances*. Our definition recognises that whilst creativity precedes innovation, the ideation preceding the implementation and adoption as well as sharing key characteristics, the concepts cannot be wholly separated for primary sector headteachers. Moreover, our definition acknowledges the need for a conscious effort in generating novelty and value, all of which go beyond pupil attainment to include a more holistic development than the grades they may achieve. Finally, our findings provide a useful framework to understand the characteristics involved in Cr&Inn as shown in Figure 3.

Although Cr&Inn is necessary for 21st-century school leaders [5], whether headteachers are willing to model and promote concepts that are often juxtaposed with wider expectations and accountability is questionable. Whilst the headteachers provided us with some understanding of the concepts within school leadership, further exploration is required to consider the enactment of Cr&Inn by primary sector school leaders before studying further educational components. For example, obtaining the views of headteachers of other countries, the wider community, including the political-environments and respective pedagogies. What is evident from this study is that Cr&Inn has much to contribute to the dynamic and accountable role fulfilled by school leaders, as well as highlight the need to fulfil the policy maker's requirements for creative and innovative headteachers.
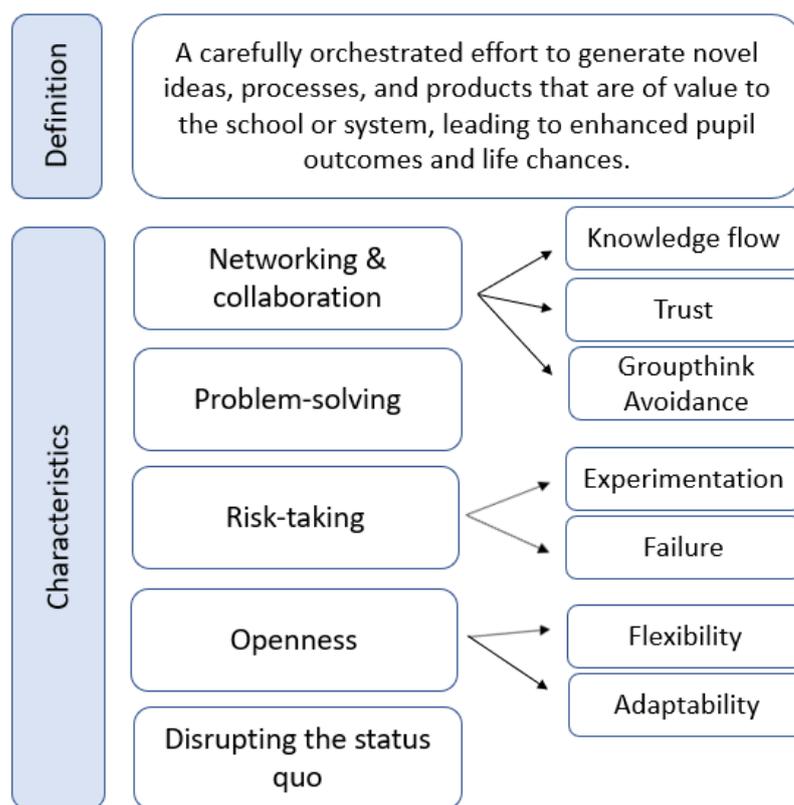
**Figure 3.** A framework of the characteristics of Cr&Inn in primary sector headship derived from the literature review and the semi-structure interviews.

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