INTERNATIONAL & COMPARATIVE EDUCATION | RESEARCH ARTICLE

‘Complex teaching realities’ and ‘deep rooted cultural traditions’: Barriers to the implementation and internalisation of formative assessment in China

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Abstract: This article forms the first part of an Action Research project designed to incorporate formative assessment into the culture of learning of a bilingual school in Shanghai, China. It synthesises the empirical literature on formative assessment in China to establish some of the difficulties that teachers have faced in trying to incorporate this approach into their teaching. Some of the barriers include student and teacher resistance and notions of face (mianzi) which are also related to deeply held cultural scripts for teaching and learning that emphasise knowledge transmission and respect for the teacher. The article then explores some of the bottom-up solutions that have been suggested by researchers, such as collaborative dialogue, professional development and international perspectives. These suggestions provide a jumping-off point for offering intercultural communicative competence as a concept and a method that could be effective in ameliorating cultural discontinuities. Throughout, I show how the difficulties and solutions highlighted by empirical research relate to my own teaching context. Although intercultural communicative competence is not new to China, its application to the internalisation of borrowed policies that include formative assessment has yet to be explored.

ABOUT THE AUTHOR

Adam Poole is a doctoral student in the department of Education at the University of Nottingham, Ningbo. He is also a literature teacher in a bilingual school in Shanghai, China and has taught in China for seven years. He is currently exploring education borrowing in China, paying particular attention to the notion of cultural scripts and cultures of learning and their role in helping and hindering the incorporation of “western” ideas of learning into the “Chinese” classroom. This paper is directly informed by this interest and represents the first phase of a collaborative school-based project that aims to incorporate formative assessment into the assessment culture of his teaching context. Adam is also interested in citizenship education in China and is currently planning a small-scale project that focuses on faculty’s perceptions of the school’s flag raising ceremony.

PUBLIC INTEREST STATEMENT

Against a backdrop of globalisation, international testing systems like PISA (the Programme for International Standardised Assessment) are increasingly being used as a way to measure the success or failure of a country’s education system. Despite excellent results in the last round of PISA, many educators in China are concerned that the current emphasis on high stakes examinations is having a detrimental effect on students’ well-being and their ability to use higher order and critical thinking skills. Formative assessment has been proposed as a potential solution to this problem, but its implementation in Chinese secondary schools still remains problematic and under researched. This paper explores some of the difficulties that teachers have faced in trying to incorporate formative assessment into their teaching and also proposes some tentative solutions. The paper is the first part of a project designed to introduce formative assessment into the author’s teaching practice.
1. Introduction
Against a backdrop of globalisation, international testing systems like PISA (the Programme for International Standardised Assessment) are increasingly being used as a way to measure the success or failure of a country’s education system. Despite excellent results in the last round of PISA, many educators in China are concerned that the current emphasis on high stakes examinations is having a detrimental effect on students’ well-being and their ability to use higher order thinking skills. Against this backdrop of debate over the role of summative tests, this article forms the first part of a collaborative project between expatriate and Chinese teachers in a bilingual school in Shanghai, China which aims to incorporate formative assessment into the school’s assessment culture. Before exploring how this study relates to the wider literature, it is first necessary to provide a brief overview of the author’s teaching context as reference is made to it throughout the article.

1.1. Background
The author’s school promotes itself as an “internationalised” school and offers a mixture of Chinese and international curricula. Students follow the Chinese national curriculum from Primary to the end of Middle school (grade 9) after which they sit the Zhong Kao examination—a high stakes entrance examination to high school. After grade 9, the students “transition” to an international curriculum and study IGCSE (International General Certificate of Secondary Education) in grade 10 and IBDP (International Baccalaureate Diploma Programme) from grades 11–12. It is clear that there is a cultural, pedagogical and epistemological disconnect between the Chinese national curriculum and the two international curricula. The emphasis on the Chinese national curriculum and the Zhong Kao examination may result in students lacking the necessary skills (such as collaborative, criticality and English communicative competence) to make the “leap” from a Chinese curriculum to an international curriculum. The incorporation of formative assessment could be a way to bridge this transition.

1.2. Relevance of the study to the wider literature
Although there is a substantial body of literature that focuses on educational reform in China (Dello-Iacovo, 2009; Yin, 2013; Yu & Jin, 2014; Zhang & Liu, 2014) and tensions between borrowing in relation to the national and the local (Liu & Dunne, 2009) there are fewer studies that deal with transnational educational borrowing of specific policies. As a result, there is a dearth of literature on the role of formative assessment in secondary education in China (Chen, 2015) as most of the research on formative assessment has been focused on tertiary education (Jian & Luo, 2014). However, recent studies (Chen, May, Klenowski, & Kettle, 2014; Gu, 2014; Yu & Jin, 2014; Yin & Buck, 2015) have started to explore formative assessment in secondary schools. These studies, along with others that focus on the borrowing of western ideas (such as Liu & Feng, 2015) highlight the role that sociocultural factors, such as cultures of learning play in helping and hindering the internalisation of imported practices. This study aims to contribute to the literature by synthesising the empirical studies available that focus on the difficulties of incorporating formative assessment into the “Chinese” classroom and to propose tentative solutions to these problems which could then be applied in my own context.

This article begins by offering a brief overview of education reform in China and the transnational borrowing process before exploring the notion of situated cultural scripts for teaching as a way to conceptualise the borrowing process. It then focuses on empirical studies of one such borrowed policy—formative assessment—which functions as a case study in order to highlight the role that cultural scripts and cultures of learning have played in enabling and problematising the internalisation of this innovative approach to assessment. Finally, intercultural communicative competence is offered as a concept and a method that could be effective in ameliorating cultural discontinuities.
which could be tested by future empirical work. Although intercultural communicative competence (ICC) is not new to China, its application to the internalisation of borrowed policies has yet to be explored. Throughout, I show how the difficulties and solutions highlighted by empirical research relate to my own teaching context vis-à-vis formative assessment.

1.3. Methods
Literature review was carried out using Google Scholar and ERIC and was supplemented by UNNC's library's “NUsearch” tool which provided access to library collections and articles unavailable via Google Scholar and ERIC. The following search terms were employed in the initial round of review: “cultural scripts for teaching in China” and “cultural scripts and transnational borrowing in China”. As the first round of review highlighted student-centred learning, I performed another search using “formative assessment in China/Chinese secondary schools”. Formative assessment was chosen as it corresponds to my teaching context. This search was limited to empirical studies in English by Chinese researchers since 2011 in order to find out what recent studies had to say about formative assessment and to clearly establish how formative assessment is perceived by Chinese stakeholders within the Chinese context. As this article makes use of secondary data in lieu of primary data, the literature search focused primarily on journal articles published in international peer-reviewed journals in order to ensure that the data appropriated had validity. The results were sifted according to their relevance to sociocultural perspectives, transnational borrowing of student-centred policies and practices, education reform in China, and relevance to the teaching of middle and secondary school (which is related to my own teaching context). The article is also supplemented with reflection on, and participant observation drawn from, the author's current teaching context.

2. Conceptual framework
Because the impetus for introducing formative assessment in my own context is informed by a more general turn to student-centred learning in China, it is necessary to briefly explore the reasons for education reform in China and how they relate to the transnational borrowing of student-centred approaches like formative assessment and the Flipped Classroom.

2.1. Education reform in China
There has been growing dissatisfaction with China’s education system for some time. This has given rise to reform initiatives that have involved educational borrowing from Anglophone countries like Britain and the USA (Tan & Chua, 2015). These reforms are designed to help China move away from knowledge transmission and repetitive rote-like learning (Jin & Cortazzi, 2006), which are considered to be detrimental to the nation as a whole, towards student-centred learning (Cheng, 2010). Curriculum reform is also China’s “main human capital development strategy for coping with the challenges of the 21st century” (Law, 2014; —see also Koh, 2010 for a similar argument vis-à-vis Singapore) the outcome of which is “Zhuanye Waiyu Fuhexing Rencai” (human resources who possess both knowledge in specialised areas and strong competence in a foreign language—translation from Feng, 2007, p. 16).

Shanghai’s continuing success in the 2012 round of PISA (The Program for International Student Assessment) tests could be considered as a testament to the curriculum reform’s success. As a result, “Western” nations are now “looking East” to learn from Shanghai which could be considered the new “poster boy” of PISA (Sellar & Lingard, 2013). However, the PISA results only show part of the picture. Empirical research on China’s reform initiative (Chow, 2014; Hu, 2002; Liu, 2010; Tan, 2013, 2015a) show that transnational educational borrowing in China is problematic due to cultural and epistemological incommensurability. More specifically, Chen et al. (2014), Gu (2014), Huang and Luo (2014), Yan (2012), Yin and Buck (2015) show how the internalisation of formative assessment is constrained due to differences between “Chinese” and “western” notions of knowledge transmission. Similarly, Liu and Feng (2015)’s study of teachers’ perceptions of the introduction of the flipped classroom also highlight the “dilemmas” that emerge during the borrowing process due to cross-cultural differences.
2.2. Transnational educational borrowing

As illustrated above, educational borrowing is not simply a case of transplanting a policy from one context to another. This is summed up by Sadler who warns that policy-makers cannot simply “wander at pleasure among the educational systems of the world” (Sadler, in Phillips, 2006, p. 46) but need to “judiciously” (Tan, 2013) select imported policies that are culturally and epistemologically commensurate with a situated local context (Steiner-Khamsi, 2014). This is because the borrowing process involves externalisation (why policies are borrowed), recontextualisation (how they are modified to fit local conditions) and internalisation (what impact they have on existing structures) (Steiner-Khamsi, 2014). Similarly, Phillips and Ochs (2003) offer a four stage model that includes cross national attraction, decision, implementation and internalisation/indigenisation. As the latter two terms are used throughout this article, I will offer a brief definition. Implementation involves the logistic requirements of implementing a foreign practice and the role of significant actors (such as local education authorities or head teachers). The final stage, Internalisation is divided up into a number of phases that include the policy’s impact on the existing system and synthesis, the process “through which educational policy and practice become part of the overall strategy of the ‘borrower’ country” (Phillips & Ochs, 2003). Consequently, because a borrowed policy moves through these stages, it inevitably undergoes significant transformation. As Cowen’s phrase succinctly puts it: “as it moves, it morphs” (Cowen, 2009). This has resulted in a turn from the examination of externalisation (Phillips & Ochs, 2003; Rappleye, 2007) to internalisation, and the role that the local context—particularly culture and cultures of learning—play in reconstituting a borrowed policy (Steiner-Khamsi, 2012, 2014; Tan, 2013, in press). However, bringing about change through the borrowing of new forms of assessment is not enough; reformers also need to consider many embedded cultural, institutional beliefs that can constrain or afford effective change (Thanh Pham & Renshaw, 2015). This leads to the notion of cultural scripts for teaching and learning which can be located in the internalisation stage of education borrowing.

2.3. Cultural Scripts for teaching and learning in China

As defined by Stigler and Hiebert (1998, 1999) a cultural script is a generalised piece of knowledge that resides in the heads of teachers and students. Cultural scripts are based on “a small and tacit set of core beliefs about the nature of a particular subject, how students learn, and the role that a teacher should play in the classroom” (1998, p. 2). Because teaching is a cultural activity, it follows that teachers and students are likely to share the same, or similar, scripts. As operationalised by Tan, a cultural script is a “coherent and evolving set of shared beliefs and assumptions located within a particular tradition that undergird the vision and purposes of society” (Tan, 2013, p. 8). Learnt implicitly, cultural scripts guide a person’s behaviour and also include knowledge such as cultural beliefs and assumptions that underpin the way of life of a people (Tan, 2015a). Cultural scripts have also been seen as synonymous with cultures of learning (Jin & Cortezzi, 2006; Tan, 2015a).

Tan shows there are many sociocultural elements that inform and constitute cultural scripts in the Chinese context including a dominant exam-orientated culture and traditional exam-orientated approaches to teaching and learning. She highlights three scripts that pertain to teaching in China and my own teaching context: students’ respect for the teacher, student attention and discipline in class, and the importance of practice, all of which find their genesis in a Confucian world view (Tan, 2015a). These three scripts also undergird the culture of learning within my own context.

2.4. Synthesis of internalisation and cultural scripts

Although both Khamsi-Steiner and Phillips and Ochs’ view internalisation as having an impact on existing macro structures (i.e. on a national policy level) Tan shows, through her appropriation of cultural scripts, that internalisation includes change in relation to micro structures between and within individuals. This is because stakeholders adapt imported policies in relation to deeply held beliefs and values and also bring to bear their own tactics and agendas (Tan, 2015a). Consequently, the internalisation of policy should also be seen in terms of how educational stakeholders conceptually make sense of formative assessment in relation to their personal beliefs concerning teaching and learning (cultural scripts for teaching and learning). Although comparativists tend to focus on
the macro, researchers interested in formative assessment in China (Chen et al., 2014; Yin & Buck, 2015) have focused on sociocultural perspectives of stakeholders in the local context and subsequently employ qualitative methodologies in order to explore stakeholders’ perceptions, which relate to notions of self and identity. For example, Yan (2012)’s study of three teachers at different stages of their careers employed, inter alia, participant observation, classroom observation, field notes and reflections as a way to capture a realistic picture of the teachers’ perceptions and responses to curriculum reform which revealed a number of psychological and professional challenges to introducing formative assessment. For example, one teacher confessed that he felt “pedagogically and psychologically handicapped” (p. 439). These methodologies are particularly well suited to exposing tacitly held assumptions about teaching and learning.

Section 3 explores empirical studies that highlight the difficulties teachers in China face in implementing and internalising formative assessment into their classroom practice. My analysis will draw upon the notion of cultural scripts and will also make links to my own teaching practice and project. Before exploring these studies in more detail, it is first advisable to offer a definition of formative assessment as its meaning within Chinese educational contexts, including my own is still not clearly understood (Chen, 2015).

3. Empirical accounts of formative assessment in China
Formative assessment within the English language curriculum in China has been heavily promoted by the government cited in Yin and Buck (2015) and cited in Chen et al. (2014) as a way of “downplaying” the “mania” of high stakes language examinations (Yu & Jin, 2014) which are perceived by many members of Chinese society to have a detrimental effect on student well-being.

3.1. Definitions of formative assessment
Acknowledging that the term formative assessment does not have a universally accepted meaning, Black and William offer a framework that “encompass[es] all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (Black & Wiliam, 1998a, p. 1). Some of the activities suggested include peer and self assessment, collaborative work, and interactive dialogue (Black, 2015). Yin and Buck also offer a similarly loose definition of formative assessment that includes “any planned or spontaneous pedagogical strategy used to elicit students’ conceptual development and use the elicited information to inform subsequent teaching and learning” (2015, p. 722). In contrast, The Chinese Ministry of Education define formative assessment as making use of “self-assessment, peer-assessment, and assessment conducted by teachers and school administrators [...] to observe, evaluate and monitor the learning process for the purpose of enhancing effective learning” (cited in Chen et al., 2014, p. 272). Whereas Black and Wiliam (1998a) and Yin and Buck (2015) underscore the formative process as a way to inform the next step of teaching the Ministry of Education articulate formative assessment as a means to increase the value or quality of learning which appears to be informed by what Habermas terms, instrumental knowledge (Mezirow, 1983). For this article, I plan to work with Yin and Buck’s interpretation of formative assessment as it resonates with Black and William’s but is more contemporary and is also informed by the Chinese context.

Although formative assessment has started to make its way into middle and secondary school classroom (Yan, 2012), there are still various barriers at both the macro level of implementation and micro level of internalisation that hinder the employment of this assessment practice within China and other Confucian Heritage Cultures (Thanh Pham & Renshaw, 2015).

3.2. Barriers to implementation: Complex teaching realities
Empirical research shows that formative assessment, and other related student-centred reforms such as the Flipped Classroom, have largely been ineffectual due to “discrepancies” between well-intentioned government policy and the realities of the classroom (Chen et al., 2014)—the “nitty gritty” of classroom routines as Gu puts it (2014), such as large class sizes (Hu, 2002) and examination pressure. These discrepancies are largely the result of a top-down approach to policy
implementation and China’s centralised education system (Cherng et al., 2013). The top-down approach is both a boon and a curse. While it has helped to expedite the implementation of reform (Gu, 2014), the speed with which it has been implemented has meant that schools and teachers have been unable to implement the necessary structural changes to incorporate reform policies such as formative assessment. Researchers repeatedly mention a lack of teacher training or professional development (Gu, 2014; Tang & Adamson, 2014) as a barrier to implementing formative assessment. A lack of training is also connected to the unequal distribution of resources (Zhang et al., 2005), which could be seen as a by-product of decentralisation. As a result, teachers are expected to play “catch up” while also dealing with the “regimes” of summative assessment. Zheng and Adamson (2003) also show that student-centred pedagogies become progressively weaker as they pass through the various level of stakeholders from top-level policy-makers down to teachers and learners. This has been attributed to poorly disseminated policies (Tang & Adamson, 2014) that are vaguely worded (Gu, 2014). This dilution and ambiguity is also compounded by the individual stakeholders themselves whose belief systems can reinforce, resist or reshape policies according to “tactics” and “agendas” (Tan, 2012). This last point highlights the need to focus not just on the macro and meso structures that inhibit the introduction of formative assessment, but also to examine the micro structures, in terms of the sociocultural and the personal and emotional (Lee & Yin, 2011). Although this paper treats implementation (macro) and internalisation (micro) as two distinct and separate processes for ease of presentation, in practice they are inextricably linked, each informing the other in a reciprocal manner.

3.3. Barriers to internalisation: Deep rooted cultural traditions

3.3.1. Clash of assessment cultures

Formative assessment, as shown above, is heavily influenced by constructivist notions of learning which highlight student autonomy and the notion of knowledge construction as fluid and dynamic. In contrast, the literature suggests that the culture of assessment in China is still heavily influenced by summative assessment and teaching practices which include transmission of knowledge through memorisation and repetition (Chen, 2015). The cultural and epistemological differences between these two approaches are often perceived as incongruous, thereby creating a clash when combined. This is noted in the literature by Jian and Luo (2014), who explain that the tension between formative assessment and summative assessment is a significant factor in explaining why formative assessment has so far not been as successful as intended in the Chinese context. Moreover, the promotion of both formative assessment through policy and the continuing influence of summative assessment as a “social reality” has led to what Chen et al. (2014) call “competing regimes of summative and formative assessment”. Teachers are expected to implement reform, but at the same time they are also expected to “teach to the test”. The move to introduce formative assessment into schools and universities has led to the inevitable question of how it should be incorporated within the prevailing culture of summative assessment given that the two approaches have been described as incongruent. Carless (2011)’s study of formative assessment in Hong Kong suggests teachers in Confucian Heritage Cultures embed formative assessment within a summative framework thereby ensuring continuity with cultural scripts that emphasise knowledge transmission. He calls this “Formative Use of Summative Testing” (FUST), an approach which retains the centrality of the test to guide re-teaching, self-reflection or peer collaboration to improve learning outcomes. This tendency to combine western and Chinese approaches as “best of both worlds” solutions is reflected in many “internationalised” schools and is articulated in rhetoric that seeks to “integrate” the “best” of “Chinese” and “Western” education (ECNUAS, 2015) and “integrat[e] [the] essence of the East and the West in terms of education philosophy and vision” (Jing, 2016). However, while Carless’ approach does seem to solve the clash between formative and summative assessment, it nevertheless appears to reinscribe the latter which paradoxically defeats the purpose for the introduction of formative assessment in the first place which is to down play the “mania” for high stakes testing.
3.3.2. Student resistance: “His classes are like water”

In addition to the clash of assessment cultures, student resistance (Yan, 2012) and teacher reticence (Liu & Feng, 2015), have been identified as major impediments to the incorporation of formative assessment/the flipped classroom with summative assessment. The quotation above comes from a former student of the author’s who described another expatriate teacher’s classes with this rather insightful simile. From classroom observation, it was clear that the teacher in question was heavily influenced by constructivist theories of learning. The students’ perception of his teaching style as being insubstantial does not reflect his ability as a teacher but highlights key differences between deeply held beliefs about the nature of knowledge and how it is transmitted in the classroom. Student resistance can thus be understood by returning to the notion of cultural scripts for teaching which have been described as a tacit framework of expectations and attitudes about how to teach and learn (Tan, 2015a). The three scripts highlighted by researchers in the Chinese context include respect for the teacher; student attention and discipline in class; and the importance of practice. Many Chinese students perceive formative assessment as ineffective due to its open-ended, constructivist nature, which is perceived to be incongruent with the notion of the teacher as the “one with the correct answer”. The incongruity created between the “one right answer” associated with summative assessment and the more open-ended nature of formative assessment can be attributed to a Confucian tradition of knowledge transmission and respect for authority which is still greatly influential despite the emphasis on reform (Yin & Buck, 2015). Students’ perceptions of assessment are particularly important as they can determine motivation and attitude towards new forms of assessment, such as formative assessment (Xiao & Carless, 2013). Similarly, Chinese teachers’ assumptions about student attention and discipline often clash with the more open-ended, collaborative nature of formative assessment which (from their point of view) could undermine their authority in the classroom. This is echoed in (Lee & Yin, 2011)’s study of teachers’ emotional experiences to the senior secondary school reforms also found that some experienced teachers found it difficult to incorporate student-centred learning in their teaching. Although they carried out the necessary reforms, they internally disagreed with what they had to do—what the authors describe as “resisting emotionally”.

The issues above, which could be described as resistance and reticence, are two issues that are likely to exist within my own context. As illustrated by the anecdote above, the teachers, particularly expatriate teachers, should question the taken-for-grantedness of constructivist-orientated approaches like formative assessment. Although Zhang and Liu (2014)’s study of junior High School English teachers shows that on the whole their beliefs are congruent with what they term “constructivist orientated reform”, the same cannot be assumed about students. Introducing formative assessment into a summative framework is also likely to be problematic not just because of sociocultural incongruity but also because of the high expectations of parents who worry that reform might affect their children’s tests scores and university entrance scores. This worry has been attributed to the one child policy, opening up and economic reform which has resulted in many families being able to spend more on their children’s education, and a deeply embedded examination driven culture (Li & Li, 2010). Wu and Singh (2004) also attribute difficulty in reform to strict centralised control from government authorities who the authors claim regulate pedagogy, school administration and ideas about education. Strict centralised control and a top-down structure have also been identified as barriers to the effective implementation (and internalisation) of student-centred policies such as formative assessment (Wu & Singh, 2004).

3.3.3. Interactive dialogue and the role of “face”

Interactive dialogue has been shown to be an effective form of formative assessment in some contexts as it can be used in an ad hoc manner (which corresponds to Yin and Buck’s definition of formative assessment in 3.2) and, due to its spoken nature, moves away from the paper and pencil mode of assessment associated with summative assessment (Black, 2015). However, interactive dialogue has been shown to be problematic due to student reticence connected to notions of “face” (mianzi)—the need to be respected by others and to avoid embarrassment in social interactions (Hwang et al., 2002). Yin and Buck (2015)’s collaboration with a Chinese chemistry teacher also identified
notions of “face saving” coupled with the logistic issues of class size as creating similar challenges identified by Gu (2014), Chen et al. (2014) and Yan (2012). For example, the large size of the class (54 students) meant that interactive dialogue and interactive collaborative dialogue between students conflicted with the deeply embedded notion of face (mianzi). Zhang et al. (2005) also note that this is a serious barrier to implementing formative assessment in the Chinese context. Yin and Buck explain that because formative assessment encourages the exploration of both right and wrong answers the student participants tended to fall back on the “one right answer” typical of summative assessment tests. The use of peer assessment, a form of interactive dialogue, was also found to be constrained by notions of face and students’ cultural scripts of learning which emphasise knowledge transmission. Yin and Buck, for example, found that the students showed little respect for each others’ contributions, as they were perceived to have little cultural capital but continued to view the teacher as the one with the “right answer”.

It can be seen that some forms formative assessment such as interactive dialogue and peer assessment are constrained by the cultural tradition in particular countries (Black, 2015). For example, Carless (2011) points out that students in schools in China are not expected to speak up in class. Underpinning this is a cultural script, or a sociocultural belief that the expected behaviour of students is to be externally passive (though internally active) and obedient and to view the teacher as the authority when it comes to the “one right answer”. It has been argued that this reflects a Confucian tradition of knowledge transmission and respect for authority (Yin & Buck, 2015) which suggests that some forms of formative assessment, which are predicated upon more democratic and constructivist approaches to learning, clash with deeply entrenched cultural scripts that emphasise notions of saving face (mianzi) and the students’ perceived expectation to be passive in the classroom.

3.4. Formative assessment success stories

Despite the many dilemmas described above, some empirical studies show that formative assessment has had encouraging results. Tang (2013)’s study of 122 senior middle school students’ views of formative assessment found that students who had been assessed by formative assessment enjoyed going to school more, and subsequently made more progress, than those assessed by summative assessment. Although the study characterises summative assessment as inherently flawed which leads to the notion of formative assessment as some kind of panacea for China’s examination woes, the results make a valid point that motivation is a key factor in the successful implementation of formative assessment in the Chinese secondary school context. Moreover, the study also suggests that teachers need to clearly explain the aims and objectives of formative assessment. Similarly, Yin and Buck (2015) not only show that formative assessment is compatible with Chinese high school high stakes testing, but could also be used to “ameliorate” its detrimental effects on students. The study also found that both the teacher’s and students’ understanding of formative assessment underwent a transformation from “behaviourism orientated teaching” which is described as a teaching belief that places an emphasis on factual knowledge and memorisation, to a more “constructivist orientated process” which focuses on the use of deeper conceptualisation and higher order thinking skills (Chen, 2015). Moreover, the introduction of formative assessment also fostered a more egalitarian, trustful and collaborative relationship not just between the students, but also between the students and the teacher (Yin & Buck, 2015). In relation to my reading of internalisation (see Subsection 2.4) the change in relationship is indicative of a transformation in the participants’ beliefs about classroom relationships which, in the Chinese context, have been shown to be shaped by cultural scripts that emphasise a hierarchical relationship between teachers and students. However, the extent to which transformation actually takes place, or should take place, needs to be further explored. For example, Zhang and Liu (2014) underscore the multi-dimensional structure of teachers’ beliefs by showing that, teachers were found to hold both traditional beliefs about learning—“behaviourism orientated teaching” and more modern ones such as constructivist approaches to teaching. Furthermore, the aim of introducing formative assessment into the curriculum should not be to replace the extant summative orientated teaching culture but to downplay its influence in
determining what is taught and how it is taught. Despite its potential shortcomings, “Formative Use of Summative Testing” (Carless, 2011), could provide a good starting point for gradual transformation.

3.5. Discussion
Overall, the implementation and internalisation of formative assessment in China still remains largely problematic as many of the theories and practices borrowed from western countries are done so with little consideration paid to their compatibility with China’s cultural/learning heritage (Liu & Feng, 2015). Where formative assessment has been successful, its success can be attributed to the efforts of individual teachers who were also supported by faculty and students who clearly understand the aims and objectives of what formative assessment entails. Policy-makers and school leaders need to be aware of the role that culture and cultures of learning play in (re)shaping imported policies. Therefore, the process of localisation\(^1\) needs to be more clearly articulated in policy documents so that teachers are able to play a fundamental part in changing a school’s culture of learning and teaching from the bottom-up (Yin & Buck, 2015). Changing a school’s culture of learning is a complex, long-term project that involves developing new values, beliefs and norms about teaching and learning (Yin, 2013). It also involves reformers and school leaders getting a grass-roots perspective by understanding not just what teachers actually do in the classroom, but also their perceptions and assumptions about teaching and learning as they are inextricably linked to motivation which is essential for reform initiatives to work. The literature reviewed also offers a range of solutions, all of which tend to be situated within bottom-up initiatives.

3.5.1. Bottom-up solutions
Researchers (Chen, 2015; Yan, 2012) suggest a “bottom up” approach to implementation that is democratic by reflecting teachers’ local knowledge and beliefs (i.e. their cultural scripts). They also suggest that change should be implemented gradually. Tan (2015b) for example characterises Chinese learners as preferring incremental change that involves progressive adaptation and an alternation of existing schemes or practices. Gradual change might help to prevent future discrepancies created by sudden all encompassing top-down approaches that fail to take into consideration the cultural and epistemological differences between cultures of learning. The notion of incremental change is also applicable to my own context which requires that students transition from the Chinese national curriculum to an international curriculum over the course of four years.

3.5.2. International perspectives
Although China has a unique and idiosyncratic culture, it is also often considered to share certain cultural similarities with other east Asian countries which are often referred to as so called Confucian Heritage Cultures due to their continuity with Confucian culture. For example, research on formative assessment on other East Asian countries reveals that cultural scripts to do with an examination orientated culture are deeply embedded within Confucian Heritage cultures. Thanh Pham and Renshaw (2015)’s study of reform in Vietnam found that students’ conceptions of learning were heavily influenced by an examination orientated culture. They subsequently transformed their approach to “doing” formative assessment so it reflected students’ examination orientated cultural scripts for learning. While it is beyond the scope of this paper to go into any more detail, teachers should be aware of related Confucian and international contexts as they offer many parallel cases that can be drawn upon to inform the implementation of formative assessment in the Chinese context (see Carless (2011) for formative assessment vis-à-vis Hong Kong; Kim (2004) for reform in South Korea, and Black, 2015 for an overview of difficulties facing practitioners introducing formative assessment in the UK.)

3.5.3. Professional teacher development
Given that policy documents are often vague when it comes to how formative assessment should be implemented, the onus is on the local education authority, school and teachers to take matters into their own hands, thereby reflecting a bottom-up approach to change. Not only is professional development urgently needed to develop teachers’ conceptual knowledge of formative assessment, it is
also needed to improve teachers' assessment literacy (Dunlai & You, 2015). If teachers are more aware of the aims and often hidden assumptions that go hand in hand with assessment, then they may have a firmer foundation on which to start critically analysing both formative and summative assessments. Moreover, virtual learning environments (VLE) could provide a space for teachers to network and enter into collaborative dialogue with each other in and outside of China. However, a major barrier against increasing professional development is access to funding. Often, teachers have little choice but to fall back on teaching to the test as it is the only viable approach within their resource starved contexts (Wang, 2011). Within my own context, while resources for professional development are readily available, the school's top-down structure means that gaining access to funding is problematic and is allocated according to perceived school need. The issue that arises is whether bottom-up initiatives instigated by teachers according to their own perceived professional judgement and needs are valorised by the administration.

3.5.4. Collaborative dialogue
Another approach advocated by Yin and Buck (2015) also calls for more collaboration between practitioners and researchers which is considered to be an effective way to bridge western theory with Chinese education practice. While the bottom-up approach advocated by Chen appears to hold the key to easing cultural discontinuity, I would argue that the collaborative aspect is fundamentally problematic within most contexts in China. Collaborating with researchers (or teachers) who have knowledge of western theory is logistically difficult as it involves the creation and maintenance of extensive guanxi networks which are contingent upon stakeholders possessing both economic and social capital. However, VLE could be one way of dealing with this issue. Gu (2014)'s recommendation for more communication and Yin (2013) suggestion for collaborative dialogue is more applicable to my own teaching context, although implementing this approach may be problematic because the faculty is made up of local and expatriate teachers who, from observation, hold conflicting views about assessment and its place within the curriculum. As a result of this potential intercultural clash, I offer ICC as an alternative conceptual and methodological approach that could be employed by both Chinese and expatriate teachers seeking to incorporate formative assessment into their school’s cultures of learning.

4. ICC and formative assessment
Although ICC is by no means new to China (Wen Quifang claimed to have proposed ICC as a “new model” in 1999—cited in Wen, 2004) its application to the internalisation phase of education borrowing has yet to be explored. Access to literature on ICC written in Chinese is problematic for outsider researchers due to the language barrier. For example, the process of literature review only uncovered one work that was available in English (Wen, 1999). While I make conclusions based upon this one work, I am mindful that there may be more studies in the Chinese literature that develop ICC further. In the next Subsection 4.1, I offer a brief overview of ICC and then show how it could be used by teachers in my own context while also referring to the empirical studies of formative assessment. This constitutes a hypothesis of sorts that needs to be verified by future empirical research.

4.1. Definitions and conceptualisation of ICC
ICC shares many links with foreign language teaching such as communicative competence which consists of grammatical, sociolinguistic, discourse and strategic competencies (Alptekin, 2002). However, ICC develops this approach in significant ways by critiquing the native speaker model which effectively forces the language learner to give up their L1 identity (Byram, 1997). Being intercultural involves developing a number of culturally specific components which include knowledge, skills and attitudes, and a person’s values (Byram & Nichols, 2001). An intercultural speaker is thus able to mediate “between different perspectives” and to be “conscious of their evaluations of difference” (p. 5). ICC, then, involves the questioning of conventions and values that individuals have unconsciously acquired as if they were natural (Alred, Byram, & Fleming, 2006). It can be seen that this has direct application to the process of internalisation and the potential transformation of self that teachers need to undergo to orientate themselves to formative assessment.
In the Chinese literature, Wen (2004) underscores the use of ICC as a way to “better measure” students' learning within the classroom which suggests a potential link with formative assessment, at least in terms of how it is conceived within the policy literature as a way to “observe, evaluate and monitor the learning process for the purpose of enhancing effective learning” (cited in Chen et al., 2014, p. 272). Whereas Wen emphasises the instrumental value of ICC, the international discourse (Byram, 1997; Byram & Nichols, 2001; Alred et al., 2006) emphasises its wider application to society, encompassing personal transformation of cultural identity and political transformation through reflection and action (praxis). My own project is informed by the international discourse on ICC as it underscores the wider application that education should have in furthering democratic dialogue rather than existing simply to improve the quality of outcome, such as high test scores, which appears to underpin Wen’s application of ICC. Furthermore, her emphasis on “measuring” students’ learning fails to take into consideration the transformative project at the heart of ICC (and the formative assessment process). Incorporating formative assessment into the summative classroom should not simply be about raising grades—it should also bring about transformation in relation to the way knowledge is perceived and constructed (formative assessment, as discussed, is informed by a constructivist view of knowledge) by being put into practice both inside and outside of the classroom.

4.2. Application of ICC to the implementation and internalisation of formative assessment

The critical tools that ICC offer are particularly suited to ameliorating the actual and perceived incongruities created when “western” practices are imported into the “Chinese” classroom. Formative assessment as defined by Black and Wiliam (1998b) is informed by a constructivist approach to teaching and learning which assumes certain types of student behaviour, such as interactive dialogue. In contrast, the influence of Confucian thought on Chinese society, such as the concept of face (as shown by Yin and Buck’s study) often constrains the use of some forms of formative assessment, such as interactive dialogue. By exploring these differences interculturally (i.e. critically and reflectively) the teacher become empowered to locate areas of incongruence and congruence. Furthermore, by externalising (or actualising) their assumptions about these forms of assessment, teachers will be in a better position to bring about change.

ICC can also be effective in mediating student/teacher communication and collaborative teacher communication. Although from the same culture, and ostensibly sharing similar cultural scripts about teaching and learning, Chinese teachers and students are still likely to possess different values, beliefs and expectations of behaviour due to generational differences (see Li & Huang, 2010 for further discussion of this in the Chinese context). Generational differences are also likely to be exacerbated by the process of “doing” intercultural critique which is likely to lead to a fundamental transformation in the teacher’s identity. Yin and Buck (2015) show that incorporating formative assessment into the teacher’s classroom leads to a fundamental shift in not only the classroom’s culture of learning, but also the participants’ identifies. The communicative aspect of ICC then is essential as a means for the “transformed” teacher to mediate not just between different notions of cultures of learning/assessment (e.g. Western/formative and Chinese/summative)2 but also between his or her own existing and emerging identities as well as those of students and colleagues.

Finally, ICC could also be used to facilitate collaborative dialogue between teachers, which in my own culturally dynamic context is often (con)strained due to the use of Chinese as the lingua franca for meetings and training workshops and stakeholders’ conflicting perceptions of assessment which can be attributed to the different cultural scripts that expatriate and Chinese staff possess. For example, some expatriate teachers enthusiastically want to promote formative assessment while some Chinese teachers are reticent to do so due to accountability from parents and the local education authority. This is something that needs to be addressed urgently. Collaborative intercultural dialogue could help teachers to mediate between the two perspectives. Moreover, the intercultural communicative dynamics between expatriate and Chinese teachers in the implementation and internalisation of formative assessment is a new and potentially interesting area that has yet to be addressed. ICC could help to facilitate such dialogue.
5. Conclusion

It has been shown that ICC could, in theory, be appropriated to resolve some of the sociocultural issues highlighted within the empirical literature that make implementing and internalising formative assessment problematic. Moreover, the application of ICC could also be explored in relation to other imported policies, such as the flipped classroom, which faces similar difficulties in internalisation (Liu & Feng, 2015).

In relation to my own teaching context, ICC could be used as a conceptual approach and a methodology to integrate formative assessment into the curriculum. Firstly, it will help teachers to explore, conceptualise and adapt current cultures of learning in order to integrate formative assessment within a largely summative culture of assessment, as highlighted by the empirical literature. Secondly, it will help teachers to mediate between cultures of learning. This is significant because the school should not replace one culture of learning with another because it is perceived to be “better” or to possess more cultural capital.

Close scrutiny of cultural assumptions is needed if student focused policies, such as formative assessment, are to be effective. One major hurdle are the competing interests of stakeholders who may have different perceptions of and intentions for formative assessment. For example, the administration may value formative assessment for its instrumental use in raising standards and bridging the gap between national and international curricula while teachers, such as myself, may value it for its reflective and emancipatory potential. Finally, some stakeholders, such as parents, may see little value in formative assessment as they perceive that it may impact upon student performance. Finally, the students themselves may lose interest in the project as formative assessment clashes with their entrenched cultural scripts of learning and teaching. As motivation is a key factor in incorporating formative assessment into the learning environment (Xiao & Carless, 2013) there has to be some continuity with cultural scripts such as knowledge transmission. Qualitative research into stakeholders’ perceptions is thus a necessary prerequisite in order to establish all parties’ intentions and concerns so they can be addressed, though perhaps not necessarily resolved, and also used to inform professional development. As Gu (2014) concludes, professional development is key to effectively implementing new policies which, in relation to my own project, will also be essential as a way to incorporate ICC into the school’s culture.

However, the above is all very speculative; the use of ICC as a way to mediate the borrowing process needs to be empirically tested. Therefore, future research could test how effective ICC is in facilitating the implementation and internalisation of formative assessment to assess its appropriateness and efficacy within an “internationalised” context. As the first phase of a proposed Action Research project, this would then inform the next round of research. It is hoped that practitioners and researchers in other teaching contexts might also draw upon some of the suggestions made in this article or engage in empirical research to contest or verify their claims. It is not being suggested that ICC is a panacea that will result in a magic symbiosis of formative and summative assessments. Some of the reasons for the difficulties highlighted by researches into formative assessment, such as the one child policy, economic reform, and examination pressure are so deeply embedded that only radical change from top-down initiatives can hope to cure them. ICC cannot solve these problems in total, but it could help teachers to integrate more student-centred approaches into summative dominated cultures of learning which in their own little way could help to bring about gradual change from the bottom-up.

Funding
The author received no direct funding for this research.

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Citation information
Cite this article as: ‘Complex teaching realities’ and ‘deep rooted cultural traditions’: Barriers to the implementation and internalisation of formative assessment in China, Adam Poole, Cogent Education (2016), 3: 1156242.

Notes
1. That is, the process by which an imported policy is adapted to fit the local context. More specifically, this process should involve a close comparative analysis of the cultural beliefs and learning heritages of both “western” and “local” contexts in China.
2. It has to be stressed that in practice these distinctions are not absolute; however, as a result of reflecting on my own assumptions about “Western” and “Chinese” cultures of learning, as well as evidence gathered through informal conversations with teachers in my school, it is possible to make the tentative generalisation that many educators often perceive them as diametrically opposed. ICC, therefore, would enable teachers to move beyond such absolute thinking.
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