Identifying the research process to analyse the adoption of the International Baccalaureate's Diploma Programme in England.

This paper analyses the flow-line around the methodology used inside an educational research process that was originally established to examine the expansion of the International Baccalaureate's Diploma Programme (IBDP) in England. This paper analyses the Research Question, then assesses the Research focus, aims and objectives. The paper then subsequently, briefly, critiques the research problem: how the expansion of the IBDP turned into a rapid decline of the qualification inside the post-16 state sector, so that the research process had to be amended. This paper subsequently analyses the research problem that this generated: explaining the discussion of the flow-line, the reasons for the research method choice, and the chosen research paradigm and philosophy of critical realism. The research process analysed in this paper comes from a completed Doctor of Education (Ed.D) which adhered to both the university's and BERA's (2011) ethical guidelines.

Words: 141.

This paper analyses the 'flow-line' around the methodology used in a Doctor of Education thesis: that was originally established to examine the expansion of the International Baccalaureate's Diploma Programme (IBDP) in England. The IBDP is a post-16 qualification first offered by the International Baccalaureate Organisation (IBO) in 1967, it is favoured in international schools (because students can move schools easily), but has been increasing in take-up in a wider range of schools, in recent decades, because of: its reputation for academic rigour; popularity of a global elite using English boarding schools; and concerns over standards of A-Levels in the English context. Following a change in funding by the previous Labour government in 2005, the IBDP became more popular as a state school was funded in each Local Authority to deliver it.

Research Question

This paper describes the initial Research Questions that were developed for a project to analyse the IBDP, within the Research Design and the methods that were considered suitable for use with curriculum leaders in schools and colleges. While this process was being initially undertaken, the expansion of the IBDP in England saw rapid decline of the qualification in schools and colleges inside the state sector, due to funding removal, hence the research process was subsequently amended. The paper proceeds to trace the implementation of a critical realist perspective (Blaikie, 2007) and how this research process then moved from analysing why and how the IBDP had become the new 'platinum standard' (Oakes and Seldon, 2011) for post-16 qualifications in England, through to the research on the subsequent analysis of its decline inside the state sector. This rapid decline has left the IBDP in England largely in the hands of both independent and grammar schools, and mainly in London and the South-East of England (Bunnell, 2016), but this research process has recorded that it has also left keen and enthusiastic staff who wanted to deliver the IBDP in the state sector, angry and disempowered, about the wider lack of opportunities and social justice in the post-16 sector in England.

The decline in the IBDP's situation inside the state sector resulted from the additional government funding for the qualification being withdrawn in 2008. This took a few years to have a noticeable impact on a two year post-16 programme. However, what it meant was that the Research Questions generated therefore shifted to becoming more appropriate for Senior Leadership Teams (SLTs) than middle tier staff in schools and colleges to answer. Whilst this change in focus did not make the earlier strands of data redundant, it did mean that the focus of this final strand shifted to examine the educational leadership of senior staff relating to curriculum adoption. The focus of this paper is therefore to outline this shift in methodological process. It particularly focuses on how the research process transitioned into analyzing how the impact of these funding changes that took place in post-16 education were responded to by SLTs, and the impact that this had on them as individuals. The paper concludes with a summary of how this project has enabled the development of methodological practice and thinking in the area of educational leadership. This research is significant, because it has opened up a difference between the curricula choices on offer to socio-economic groups that continues to permeate through the education system: with the IBDP's withdrawal from many state schools and colleges.

Research focus, aims and objectives

This paper tracks how the research process changed over time. From first wanting to understand the changing patterns and increase in the take-up of the IBDP in England, from a student and a middle-tier perspective, into an analysis of why SLTs were removing it in the state sector. The paper briefly explains what the SLTs *thought* and *felt* about these changes that were happening to the curriculum, at a time when the IBDP had just expanded, and been adopted into their schools and colleges. Thus the aims were to determine:

- *why* SLTs make the decision to implement non-mandatory policy?

- how, do SLTs deal with the successes or failures that this can bring?

The Research Process (RP) therefore moved from being one that focussed on students and middle tier staff to one that ended up focussing on the SLTs in post-16 across a variety of different types of institutions. Hence, over time the focus of the research question became:

- *why* SLTs in particular institutions at specific conjunctions in recent times have responded as 'professionals' and leaders in defining new ways of learning and organising learning and its 'outcomes'

The connections between the chosen methodological approach (critical realism) with the methods adopted (questionnaires, focus groups and, most importantly, interviews) and how they were applied for the purposes of this research process. It introduces and provides a justification of these chosen methodologies and corresponding methods: highlighting their potential shortcomings – which were also subsequently addressed. Also important is how the nature of the subject matter has shaped and determined the chosen Research Strategies (RS) and their corresponding Research Questions (RQs), and how this has impacted on the overall research approach adopted. It is important in any piece of social research that an appropriate and rigorous theoretical stance has been adopted, and this is justified below, in relation to this research process (Gubrium et al, 2012).

The theoretical basis of the reflexive nature of this research process was an important dimension of its overall research strategy. The concepts of reflexivity (Giddens: 1990; 1991) and how this was interpreted was a significant strand in the research process undertaken. The following diagram, Figure 1, explains each of these research phases, with a commentary on each stage, demonstrating how the focus shifted from: students; middle-tier staff; HEI students; through to examining how SLTs '*thought*' and '*felt*' about the adoption and removal of the IBDP:

Research strategy

In common with much practitioner-based research at doctoral level in the social sciences, the Research Strategy (RS) chosen was an Abductive Research Strategy (Burgess et al, 2006), given the number of positive and relevant points for it:

- Abduction, a strategy that is implicit in a number of research paradigms, has been advocated as either the only suitable one for the social sciences, or as an essential adjunct to other research strategies.
- Abduction characterizes those research paradigms concerned with deriving expert accounts of social life from the everyday accounts that social actors can provide.
- In view of the fact that much social life is routine and habitual, and takes place in an unreflective, taken-for-granted manner, the accounts of social actors do not usually reveal the largely tacit meanings that underpin their interactions.

Blaikie, 2007: 107.

Abduction, the process of re-visiting material but retaining the authenticity of the voices that it contains (as has taken place with the coding of the interviews), is explained below:

The main access a researcher has to these constructions is through the knowledge that social actors use in the production, reproduction, and interpretation of the phenomenon under investigation. Their reality, the way they have constructed and interpreted their activities together, is embedded in their everyday language. Hence, the researcher has to enter their world in order to discover the motives and reasons that accompany social activities.

Blaikie, 2007: 10

Researchers using this research strategy often undertake observation and live and breathe their research. Participant observation can take many forms, and this research process clearly embodies this process: SLTs' views themselves needed to be heard. So relatively long interviews were undertaken; the interview material was subsequently subjected to rigorous reduction, which maintains the authenticity of the interviewees' responses (Kvale and Brinkmann, 2009). This process, which draws on a version of Weber's idea of ideal types as a methodological construct, then enables the researcher then to:

> Re-describe these actions and motives, and the situations in which they occur, in the technical language of social scientific discourse. Individual motives and actions have to be abstracted into typical motives for typical situations. These social scientific typifications provide an *understanding* of the activities, and may then become ingredients in more systematic explanatory accounts.
>
> Blaikie, 2007:10 (italics in original).

Bhaskar (1978) describes the abductive strategy in terms of layers, where the members of the group under scrutiny have their insider understanding scrutinised by the researcher, and made available for the wider 'outside' world. Blaikie explains this in terms of layers. The following columns demonstrate the adaptation of the Bhaskar original, as identified by Blaikie, which has the explanation of this research process alongside:

Table 1 - Research strategy: Adapted from Bhaskar by Blaikie, 2007: 90

Everyday concepts and meanings	*SO: Students have opportunity to take IBDP*
Provide the basis for	
Social action/interaction	*Choice (or lack of choice) over curricula options*
About which	
Social actors can give accounts	*SLT accounts of decisions on IBDP implementation*
From which	
Social scientific description can be made	*In vivo coding of these accounts provide the opportunity to give the detail of the micro positioning of leaders in the system*
From which	
Social theories can be generated	*A macro social scientific position can be generated from social inequality*
Or which can be understood in terms of existing	
Social theories or perspectives	*Theories and perspectives on social justice.*

One of the basic differences in research strategies is whether a researcher is choosing to use a *top-down* or *bottom-up* approach. This research process was conducted inside schools and colleges that delivered the IBDP: in order to find out what respondents in these centres thought about it as a qualification. Hence, a *bottom-up* approach was adopted, as the participants' voices being heard were an important part of this process. If a *top-down* approach had been taken, then quantitative data, such as online questionnaires: asking *what* and *when* questions would have been utilised. Rather than this research process that utilised open-ended interviews. These encouraged the SLTs to explain their positioning. It is what has been learnt from the IBDP's adoption process which is of importance here - for this results' directly from the qualitative motivations of senior staff: who change such a curriculum. When such a change is introduced by choice, and is not mandated by the government, it is these views of these senior staff that are important. Thus, developing research strategies that were concerned with concepts of choice, decision-making, distribution of resources, and potentially the reduction of social mobility were considered.

Phase 1 - January 2009: Taught research modules

Motivation for wide-range of both state and independent education centres to introduce the International Baccalaureate's Diploma Programme into their curriculum identified as a social and educational interest

Phase 2 – Easter 2010: Piloting research methods (questionnaires and focus groups to students and Middle Tier staff)

Initial reading and identification of theoretical approach, research paradigm, and

Phase 3 – July 2010: passed all taught modules, and transferred to research stage

Generation of research aims and objectives

Phase 4 – March 2011

Strands 1, 2 and 3 underway: collecting data from student and Middle Tier staff body, via questionnaires and focus groups

Phase 5 – March 2012

Transcribing focus group data and analyzing questionnaire data

Discussion regarding appropriateness of chosen methodologies and review of literature and existing

Phase 6 – Sept 2014

Identifying missing Senior Leadership Team input: **Strand 4**: SLT interviews carried out in existing centres, transcribed and coded

Phase 7 – Sept 2015

Strand 4 widened out - bigger sample needed, SLTs identified, approached and interviewed, interviews transcribed and coded

Phase 8 – January 2016

Writing up of final thesis findings

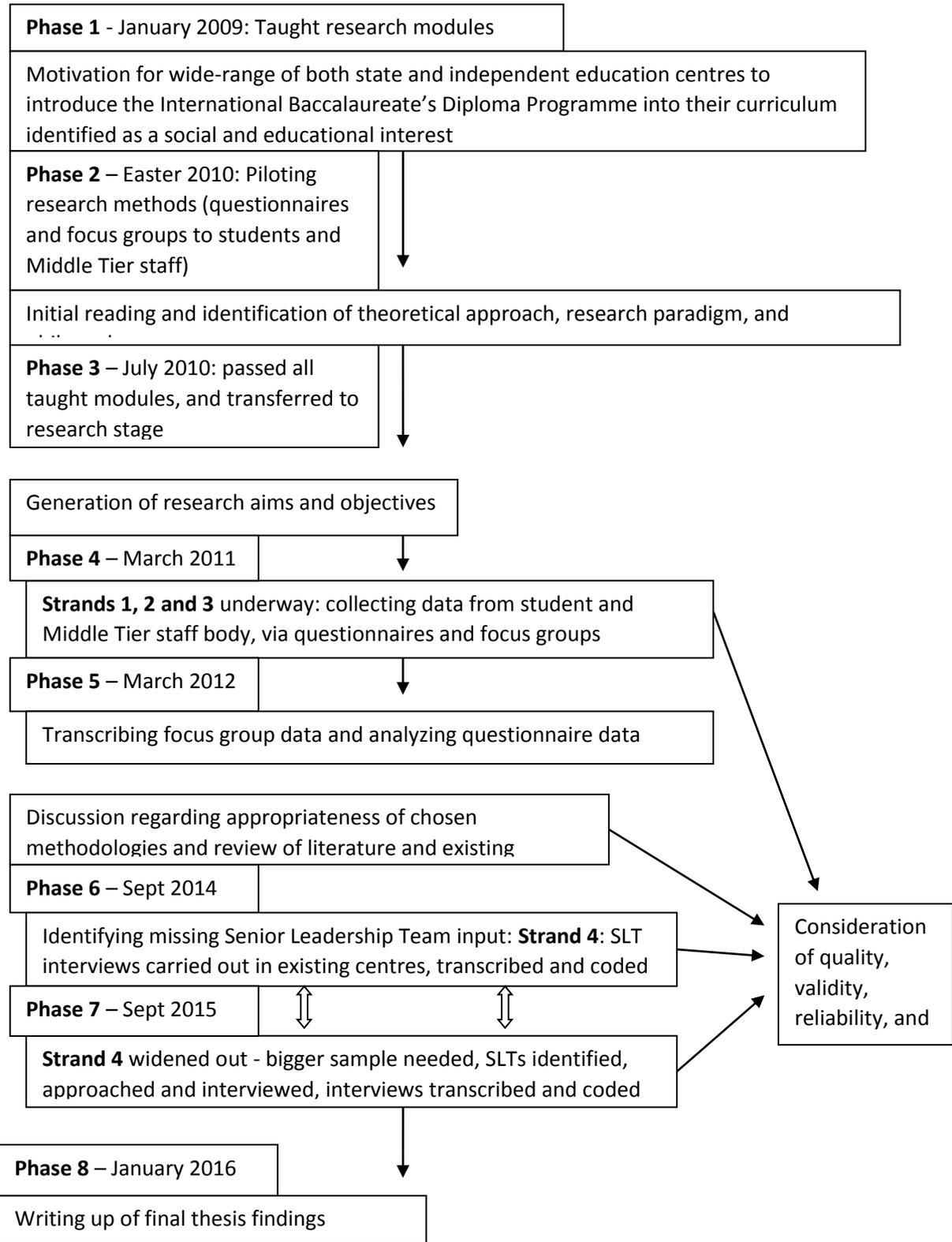Consideration of quality, validity, reliability, and

Figure 1 - Ed D Research Process, adapted from Bhatt (2004)

Phase 1 identified the motivation for the wide-range of both state and independent schools and colleges that introduced the International Baccalaureate's Diploma Programme into their curriculum, as a social issue of considerable educational interest and significance. This was thought to be relevant not just to the higher socio-economic groups who have access to the IBDP, but to wider society through the discussions of social mobility. that had been publicised across the education sector and through the media with the publication of Milburn's series of social mobility reports (2009; 2012; 2015; 2016). Initial research assessed up-to-date knowledge of the IBDP, and also where the wider research community's interests were in the qualification.

Phase 2 involved initial reading and identification of the theoretical approach, research paradigm and philosophy, and the generation of research aims and objectives. At this stage, the research was focussed down to a manageable research problem that was a spin-off from an HEA funded research project that the author had been involved with. Research of available methodologies was undertaken to identify the most suitable approaches which led to the piloting of focus groups and questionnaires to students and middle-tier staff. Initially formed research objectives (particularly the collection of data on Socio-Economic Status (SES) data) were adapted after the pilot had taken place. Pilot research surveys identified 16-19 students as being either unwilling or unable to identify parental occupation accurately. So the focus of research shifted to the reason's that the staff had chosen to adopt the IBDP (at this stage just from the viewpoint of the middle tier of staff) and away from the individual student's reasons for taking the IBDP.

Phase 3 involved the preparation and assessments for all three of the taught modules of the Ed D programme, and the subsequent transfer to the research stage.

Phase 4 revised the focus for the collection of the research (for what subsequently became Strands 1, 2 and 3). This was organised into appointments for access to the two groups of students: IB and A-Level cohorts, in the first three identified centres. The research process first went through institutional approval from the head or principal in each centre. Once this had been received, the head of social sciences and IB programme directors were contacted, and apprised concerning the research topic and required student and staff access. The questionnaires and focus groups were then carried out simultaneously. The researcher was careful to adhere to the university's ethical processes.

Phase 5 comprised the transcribing of the focus group data, and analyzing the questionnaire responses. Although the focus groups provided some very interesting 'ethnographic vignettes' (Savage et al, 2015:17), that demonstrated that students from particular socio-economic background's were taking the IBDP: such as, 'I was always going to do the IBDP, it was just a case of where my parents agreed that I should go'. It was at this point that it was realized that the questionnaires and the focus groups really needed to have a fourth strand of interviews of the Senior Leadership Teams in these schools/colleges, in order to better understand the reasons for why these schools and colleges were withdrawing from the IBDP. As the original research plan that had been put into place was about the adoption of the IBDP and what students and middle tier staff thought about that, not about it's decline and the reasons for it – which these groups could not answer. So the final strand of data from SLTs was considered.

Phase 6 involved contacting the SLT members and asking for interview permission, dates and times. These interviews were conducted, transcribed and then coded, but two matters were of concern. First, the two state centres in the sample had by now removed the IBDP, so that the focus of the SLT interviews in the state centres had become 'why was it removed' (and what can we learn from that). Second,

depending on how the data from the centres was reported, they remained potentially identifiable as such a small sample. Through the subsequent thorough anonymisation of the data sets and the introduction of other centres in the following strands, this risk was substantially reduced. Mayring's (2000; 2007) method was chosen to analyze this qualitative data. This coding method has its origins in the German social science community (Flick, 2009), so it is a less common method of analysis in the English and American research worlds.   There are several advantages of utilising this Mayring method: this included its ability to qualitatively analyze the relatively large amounts of data that the transcriptions of the 28 SLT interviews had generated, and being able to grapple with what the leadership teams *thought* and *felt* about the decisions that they have taken on the IBDP. Although whenever working with anything new, it obviously takes time to absorb, understand, and apply the method. Transcribing all the data by hand (instead of sending out to a transcription service) had the benefit of the author knowing the detail of the interviews, although it was very time consuming.

During Phases 4 to 7, an on-going consideration was given to the issues of quality, reliability, validity, and reflexivity, in order to ensure transparency, and justification of the chosen research methods, as Figure 1 above demonstrates (adapted from Bhatt, 2004). This was so that the knowledge generated by the processes that the research was subjected to, was credible and of a high standard. Every stage of the research process was subject to a reflective process (Giddens: 1990; 1991) which informed and help shape the quality of the analysis that was generated. The key areas of credibility, transferability, dependability, and confirmability, were also considered throughout this process, as adapted from Lincoln and Guba (2005).

Phase 7 involved contacting some more schools/colleges to generate a wider purposive sample, in particular the author was looking for state centres that had managed to maintain their delivery of the IBDP, and contact with further independent schools that delivered the programme, so that the purposive sample involved was relatively even. This involved a total of 28 interviews: 13 from the independent sector, and 15 from the state sector. This, was largely because state school/colleges

tend to have larger SLTs (as they are usually bigger in terms of both staff and student numbers).

Phase 8 writing up of the final project findings took place; this phase consisted of regular interaction between the findings and the literature review. It also highlighted the contribution to knowledge, unresolved areas, and implications for future research contained in the thesis. This includes, the matter of what was learned both empirically and in respect of the data, and with regard to the issues outlined throughout the research process such as impact on curriculum choice and wider potential lack of English social mobility, as a consequence of the IBDP's declining existence, particularly in the state sector.

Research method choice

As can be seen from the flow-line above, the research method choices evolved over time, but were initially made with the idea that a mixed methods approach using large scale student surveys (first strand) could be utilised with data from smaller focus groups of qualitative data from middle tier staff (second strand). This approach was rigorous at the outset as it combined the large numbers of students (and a way of getting data from year groups) with the thoughts of middle tier staff on their curriculums. But after the data set started to change, and schools and colleges began to remove the IBDP from their curriculum, it became clear that these chosen research methods did not concern the leaders who were making the decisions around the IBDP's adoption and removal.

Research paradigm, philosophy, and Critical Realism

Research paradigms are in themselves 'Broad philosophical and theoretical traditions within which attempts to understand the world are conducted' (Blaikie, 2007:3). As Blaikie argues the decline of structural functionalism in American social theory has meant that it has become the business of all social researchers 'to face up to and deal with, a range of choices and dilemmas that lead to the use of fundamentally different research strategies and have the possibility of producing different research outcomes' (Blaikie: 2007: 1). Hence, the research paradigm chosen (with its underlying philosophical traditions) is fundamental, as it colours the way in which we choose to look at the data that we uncover. Given that no approach is perfect; most social researchers use a combination of approaches, the key to which is being able to justify what has been used and why.

The focus in this paper from this research study has been on the ways in which the 'flow-line' has to adapt to cater for the changes that happen to data sets. In this case the decline of the IBDP: particularly in the state sector outside London and the South-East of England. This project presented both a critical view of non-mandatory education policy and how it is implemented within the system, and the wider structures that exist in our society. Critical realism comes from a middle way between positivism and hermeneutics (Blaikie, 2007). Bhaskar (1978) argued that using an interpretivist (or hermeneutic) foundation for critical realism: necessary to distinguish between meanings and motives, as was discussed above:

> 'Bhaskar is committed to the reality of social structures, viewed as the relations between social agents in social positions. These structures have an influence on social activity, in that they both enable and constrain actions'.
>
> Blaikie, 2007:148.

It is this philosophy on the nature of social structures, using critical realism, (Harre, 1986) which enables a research strategy to be developed along key theoretical and analytical educational themes. These themes were examined by the research project's literature review.

As Blaikie (2007) contends, methodological choices first have to deal with RQs, followed by RSs, and these then have to make a subsequent choice on Research Paradigms (RPs). Scientific areas differ vastly, and in many ways, to the social sciences. As stated above, this project 'morphed' from one that focussed on students and middle tier staff, into one that discussed rigorous qualitative information on how senior leaders, in schools and colleges, in particular, *thought* and *felt* about IBDP take-up This research process is trying to measure or gauge something that cannot be looked at again in exactly the same way, as it was a response given by leaders to a particular choice of non-mandatory policy implementation, during a specific time frame from 2010-2015.

Conclusions/ syntheses

In summary, this project has enabled the development of methodological practice and thinking in an area of educational leadership, by adapting chosen methodologies to the changing circumstances of the IBDP in England between 2010 - 2015. This paper has outlined how the use of an abductive research process; critical theory; and listening to both students and middle tier leaders in the earlier stages of the research (through focus groups and questionnaires) transitioned into an adjusted process using the Mayring method (2000; 2007) in order to better understand detailed qualitative data.

This research benefits the developing practice and thought about educational leadership: in a wider policy-based context. It deals with macro discussions around the social group usage of a value-laden curriculum, and the ways in which it is possible to research these. It is in thinking through our methodological practices

about our data, that opportunities to uncover different perspectives on education leadership are generated.

Word count: 3,807.

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