

***Massive Multiplayer Online Games Communities:  
Lessons for Diversity in School Classrooms***

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**Abstract**

Computer gaming is often seen as a barrier to good performance at school. It is claimed that young people are becoming more obese, demonstrating poor psychological adjustment and developing addictions to video games (Kulman, 2015). However, by using a systems approach to the understanding of group dynamics, based the Hackman and Morris (1975) Input-Process-Output Model of Group Performance, it is possible to find that there are lessons in learner experience from computer games, particularly the Massively Multiplayer Online Games (MMOGs), such as World of Warcraft, which may be applied to schools. By examining the Macro, Meso and Micro Levels (Hackman and Morris, 1975) and the accompanying Environmental Factors (Chou, 2015) of these two different communities, it may be seen that there are positive aspects of computer gaming that might be helpful in managing today's highly diverse school communities. Meso Level characteristics from MMO Games such as "self-organising" groups and Environmental Factors such as positive motivational drivers (e.g, empowering creativity and ownership) may be beneficial in developing a more learner-centred classroom. These characteristics could at least partially replace the "concocted" groups and negative loss avoidance motivational strategies that currently exist in European schools. This may go some way to developing classrooms in which diversity among students is respected rather than treated with contempt.

Keywords: School Community, MMOG Community, Group Performance, Diversity Management

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## **Introduction**

Young people in schools today have to manage a wide range of stresses and pressures. These include intensifying pressures to perform on exams, even at a very young age, and stresses induced by the increasing diversity of our communities. As a result of increasing migration into and across European states and communities, as well as other pressures on young people, such as exams and social media, diversity management in European schools is becoming increasingly important in order to prevent conflicts in schools. The @MINDSET project has looked at diversity across a range of European states, and has developed a conflict prevention programme that provides Continuing Professional Development (CPD) for European teachers.

In order to better understand the needs of young people in schools, it is important to understand the nature of the social groups which these young people inhabit. The nature of young people's communities can be usefully analysed through a systems approach using an Input-Process-Output Model of Group Performance (Hackman and Morris, 1975). This will demonstrate how factors at various levels of analysis impact on young people. In this paper, the ways in which school environments and social environments, such as Massively Multiplayer Online (MMO) Gaming communities, impact on diverse groups of young people will be analysed, and lessons from MMOG communities will be explored for their applicability to school communities.

Both school communities and MMO Games communities can be described using the Input-Process-Output Model of Group Performance. The model will demonstrate how factors at various levels of analysis impact on the environment of young people. Figure 1 below illustrates the Input-Process-Output model, where group level factors, individual level factors, and environmental factors form the Inputs. The group interaction process in the community is the Process, and the Outputs can be seen in terms of group performance, community member satisfaction, community member development, etc.

# Input-Process-Output

- This can be represented as a diagram:

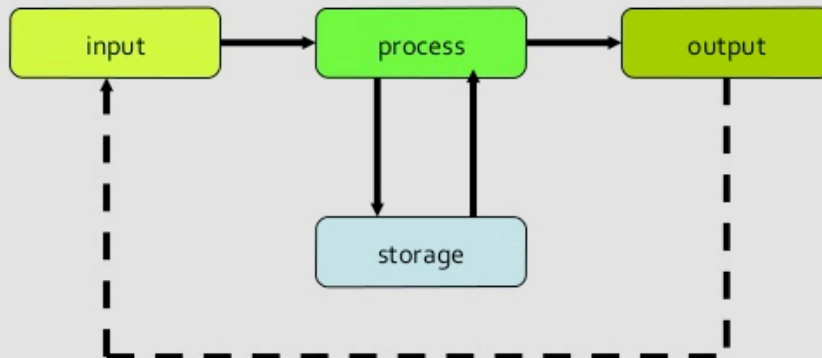


Figure 1: Input-Process-Output Model

(Source: <http://www.slideshare.net/menisantixs/pp10-input-processoutput>)

Figure 1 demonstrates that inputs to social processes can be analysed in terms of the Community (Macro Level), Groups within the Community (Meso Level), the Individual (Micro Level) and the Environmental Level.

Once it has been established how the two communities map onto the levels of analysis model, they can then be compared. In order to undertake a comparison, it is first necessary to look at what is known of the structure of these two communities. Figures 2 and 3 demonstrate how the levels of analysis may be applied to the two communities.

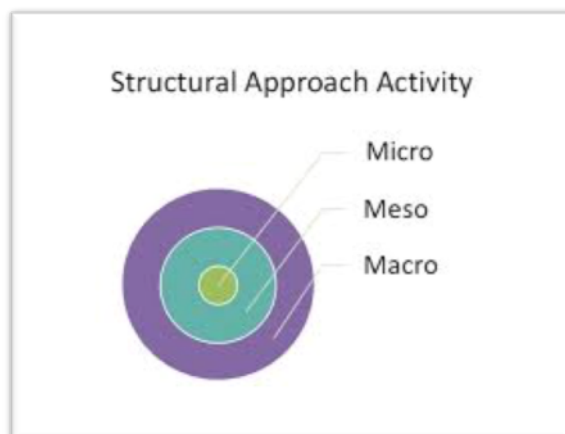


Figure 2: Community Structure in Schools

(Source: <http://www.slideshare.net/markmfelvus/micro-mesomacro>)

In Figure 2, the Macro Level includes:

The school itself

The wider community

Parents

Staff

Governors

The Meso Level includes:

The class

Sub-groups within the class

Cliques

While the Micro Level includes the individual students.

In MMOG communities, the levels may be diagrammed as follows:

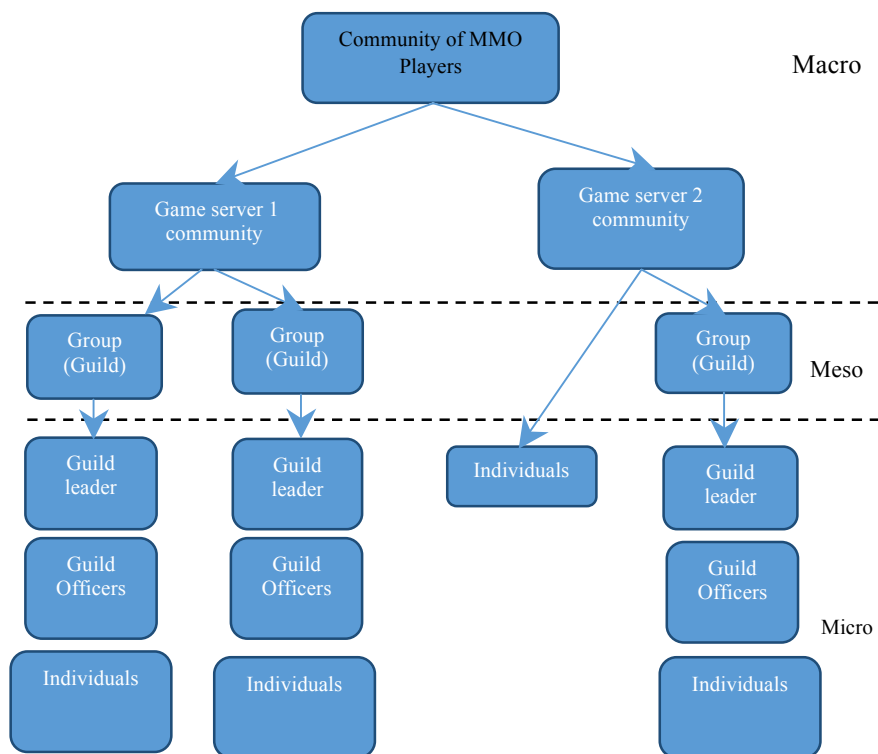


Figure 3: Community Structure for Massively Multiplayer Online Games (MMOG) Communities (Source: authors)

Figures 2 and 3 illustrate the levels of analysis model as applied schools (Figure 2) and MMOG communities (Figure 3). School communities are commonly thought to be very hierarchical. While this may be true in terms of the command and control management systems operating in many schools, it is less true in terms of the school as a larger community. Schools have a large variety of stakeholders at a macro level, which means there has to be a high level of community consensus and the establishment of norms which satisfy a broad range of needs for inclusivity. MMOG communities, in contrast (see Figure 3) have highly hierarchical structures. The top

level is the Macro Level, the centre is the Meso Level, and the bottom is the Micro Level. To a large extent in these Game communities, consensus is required a priori in order to play the game.

#### Group Factors at Macro Level

The Macro Level of a school community consists of multiple stakeholders:

Head of School

Staff

Governors

Parents

The Local Community

The School itself as an entity

For MMOG communities, the Macro Level consists of Game Community Managers who are responsible for the smooth running of a game world that is based on a server. Different servers will have different types of gameplay. In World of Warcraft, the types of gameplay are termed realms.

There are four main categories of realm: Normal realms, Player-versus-Player realms, Roleplaying realms and Roleplaying with Player-versus-Player realms, which will be considered below in order to understand the structure of the Macro Level of the game.

Normal realms, often referred to as Player-versus-Environment realms or simply PvE-realms, are realms in which the player base is mostly focused on the PvE aspects of the game. These include:

Undertaking quests

Exploring dungeons

Raiding

Killing bosses

The players on PvE realms also play PvP (Player-versus-Player), but this usually has a much lower priority. The technical difference between a PvE realm and a PvP realm is that no players are flagged for PvP combat outside enemy territory. This means players of the Alliance cannot attack players of the Horde when they meet in the world, unless they are in a Horde major city, or vice versa. Non-player characters (NPCs) of the opposite faction will still be hostile. An NPC, sometimes known as a non-person character or non-playable character, in a game is any character that is not controlled by a player.

Player-versus-Player realms, often referred to as PvP realms, are realms with a forced PvP flag in all contested territories. The main priority for players in PvP realms is usually split between PvP and PvE, and, although the server is marked as PvP, that does not indicate there aren't any players undertaking PvE on the realm. The only places you will be able to un-flag yourself for PvP is in your faction's territory and major cities.

Roleplaying realms, or RP realms, function in the same way as PvE realms. The only difference is an additional layer of rules regarding naming and language. On RP realms, players have to give their characters 'fitting' names. This means:

No '133tspeak' or 'dudespeak' names

No names with a totally unrelated meaning, such as 'Microwave'

No names related to real persons such as celebrities

If Blizzard finds a character with a name not fitting a RP realm, it pokes the character with a free name change (and an account warning/temp ban, depending on the seriousness of the bad name).

RP realms also have rules for chatting in the 'visible channels' (i.e. /s, /y and /e). You have to stay in-character in these channels. That means players have to talk as if they are in character, living in the Warcraft universe. It would be perfectly fine to say this on a RP realm: "Look at the nice weather! I want to take a walk down to Lakeshire and fish on the bridge." It would not be fine to say this on a RP realm: "My sister got a new Volvo yesterday. It's a nice and fast car." The difference is that the first sentence is in-character (IC), and the second sentence is out-of-character (OOC).

Roleplaying with Player-versus-Player realms, more often referred to as RP-PvP realms, functions in the same way as PvP realms, and includes the additional RP rule set. These realms are RP realms for the players who wish to play on realms with PvP flags up. (Lethan, 2011)

Norms

Norms are the informal and formal social expectations used by the community to guide behaviour. An example of a norm is the idea that competitors should shake hands after a sports event. Norms are important factors at the Macro Level of the group.

In schools, the Macro Level stakeholders together develop the expected norms of behaviour of the school. For schools, there are a variety of ways in which norms are communicated to the community. These include:

Behavioural contracts

Shared belief words (e.g. tolerance, kindness, integrity etc)

Mission statements (e.g. "creating educated and engaged citizens")

School motto (e.g. "Working together with Jesus by our side")

School song

Religious affiliations of the school

Schools promote their norms to the wider community so that the local area will be more likely to support the school. Good Governance should include positive interpersonal interactions between:

parents and the school

the school and the wider community

teachers and students

teachers and parents

Where positive and inclusive norms are established, these should reflect the needs of the macro stakeholders, the community sub-groups, and the individuals. Positive and inclusive norms should also impact on school governance, the arena in which Macro stakeholders interact. It is our contention that good governance has a direct effect on inclusivity within the school. It is personal interactions between stakeholders that can play an important role in school decision-making (van der Arend and Behagel, 2016). In MMOG communities, positive interpersonal interaction and reward creates positive ties between community members. Negative interpersonal interaction and punishment or unfair/ unjust treatment weakens those ties. For MMOG communities, the members are:

Fellow community members

Community Manager

Guild Leader

Guild Officers

For MMOG communities, norms are written into the rules of the realm and engagement with others within the realm is dictated entirely by the rules of the realm. In the examples of realms above, there are strict rules to which players must adhere. In some realms, competing factions cannot compete against each other unless certain conditions are met. With other realms, the language the player uses must adhere to certain codes to fit in with the realm lore. There are also extensive lists of rules governing conduct associated with the accompanying forums for the community. (Battlenet, 2015)

For both types of community, however, interpersonal interaction has multiple facets. For instance, there is a linkage between an individual's position within the community and their satisfaction with that community (Shaw, Robbin, and Belsar, 1981). Both communities may be studied using Sociometry (Moreno, 1956), in order to find the path of information flow through a group by examining interpersonal relationships.

Group Level Factors at Meso Level

The Meso Level of a school consists of classes, sub-groups within a class, and cliques. Cliques are excellent examples of self-categorising groups that develop their own ethos to perform effectively, taking into account the influence and cohesion that is present at a group level.

The Meso Level in the MMOG community consists of guilds, which are teams within a realm. These teams not only follow the rules of the realm, they will also decide upon their own acceptable modes of behaviour and goals.

Cliques and guilds are examples of self-categorising groups.

Social (Self-) Categorisation

In both communities, self-categorisation is extremely effective as a group development strategy as it immediately gives the community member a clear sense of belonging and identification with the group. These are self-organising groups that develop their own norms. Figure 4 below demonstrates the social categorisation and self-identification process, in which group members identify themselves with group characteristics in order to be identified as belonging to the group.

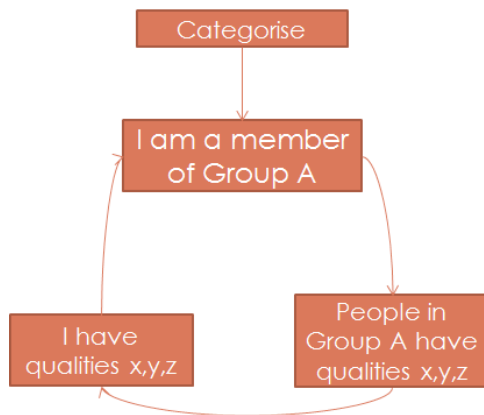


Figure 4: Social Categorisation

In schools, classes are artificial constructs to put students into "concocted groups" in which students do not necessarily identify with others as the classes are groups planned by individuals or authorities outside the group. As this is the case, the students in the class will often try to form self-organizing groups in the form of sub-groups or cliques which "emerge when interacting individuals gradually align their activities in a cooperative system of interdependence." (Forsythe, 2006) When this is left to happen naturally, it may lead to the possibility of the isolation of individuals or groups of individuals. Such social exclusion may have substantial and substantial and long lasting effects on cognitive performance (Emadi-Coffin, Fletcher, and Hetherington, 2015)

#### Group Identity and Esteem

School classes often struggle to develop group esteem due to the lack of the ability to socially categorise when they are first formed. To give students a sense of identity to strive together schools often create a second artificial group construct in the form "houses", where "house points" can be accumulated by individuals or house groups and put towards a grand total. As house membership is determined by teachers, this leaves no room for social categorisation, unless of course you are a student at Hogwarts and a sorting hat is applied on the day you enter the school.

#### Individual Factors (Micro Level)

The takes into account the individual's needs within a community, especially their need to express themselves as individuals but from within an inclusive and cohesive group.

The greatest similarity between MMOG communities and school communities is at this Level. The Membership Attitudes of the individual in both cases are:

- desire or intention to remain in the group
- identification with or loyalty to the group
- attitudes about other members of the group

Whereas the behaviour that each displays due to their attitudes are:

- their decision to participate in the group
- susceptibility to interpersonal influences
- commitment to group goals
- attachment to the group belief system or norms



If, however, an individual in a school does not have an attachment to the group belief system or norms, it is harder to leave the school than it is to leave a guild and a realm in the MMOG community.

#### Environmental Level Factors

Environmental Level factors are not related to the environment in a physical or virtual space where the community exists, but are related to the social environment that determines the types of tools that are used for motivation and reward so that the individual as well as the group succeeds.

Over the last decade, (Chou, 2015) has created a framework for motivation primarily for the purposes of instruction into how to apply gamification to products and services in order to engage consumers. This framework can be applied to communities and to engaging individuals in a community through eight core motivational drivers:

Epic meaning and calling

Narrative of personal growth

Empowerment of creativity and feedback

Ownership and possession

Social influence and relatedness

Scarcity and impatience

Unpredictability and curiosity

Loss avoidance

The first of the core drivers is epic meaning and calling. It is the driver that makes individuals connect emotionally because they believe they are participating in something bigger than themselves. This is often a technique used in change management and organizational studies (Czarniawska, 1998).

The second core driver motivates by developing a narrative of personal growth towards a targeted goal or set of goals. It creates a sense of accomplishment through challenges that can be quantified against others in the same setting and has its basis in performance studies (McGonigal, 2006).

Empowerment of creativity and feedback is the third core driver and is about autonomy. It is achieved through play and playfulness, including the creation and sharing of ideas and fun things to do. This driver has its roots in self-determination theory (Deci and Ryan, 1980).

The fourth driver, ownership and possession, derives from the human need to possess things and to protect those things that they own. Csikszentmihalyi (1993) splits these down into two main categories: objects of power and objects and continuity of the self. The motivation is based on the idea that objects extend the sense of self. "We need objects to magnify our power, enhance our beauty and extend our memory into the future." (Csikszentmihalyi 1993)

The fifth core driver, social influence and relatedness, is associated with the perception of individuals or groups of what others think of them. The perception may operate on a personal level or on a group level. This core driver motivates individuals to social mingle and compare themselves with others in terms of ability or material possessions.

The sixth core driver, scarcity and impatience, is centred on the human desire to have something that the individual cannot have, or at least cannot have immediately. In fact, when the goal is extremely hard to reach, this increases the scarcity and creates the same motivator. Scarcity and impatience is a combination of motivation caused by the economic concepts of supply and demand (Marshall, 1890) which are now the basis for almost all economic theories, including Worchel, Lee, and Adewole (1975). This driver also draws on Flow Theory (Csikszentmihalyi, 1990), where the difficulty of the challenge must meet the ability of the participant and grow as the participant grows in experience.

With the seventh core driver, unpredictability and curiosity, the notion of reward derives from Forster & Skinner (1957). Skinner's contingency of rewards that breaks them down into fixed and variable ratio schedules, fixed and variable interval schedules, and avoidance and chain schedules are the basis for the method of the distribution of the reward. The pacing of this reward can add a dimension of unpredictability which prevents the recipient falling into a rut and becoming demotivated.

The eighth and final core driver is loss avoidance. This is the simple motivator of fear of losing something. This may range from something that has been worked on to get and is hard earned both in time and or effort. Conversely the same effect can be achieved by the individual imagining or perceiving that they are missing out on something.

When you analyse both communities using Octalysis, it is interesting to see the similarities and differences in the motivational drives used, see Figures 5 and 6 below. The Octalysis Framework is an octagonal chart diagramming the Eight Core Drives of Gamification (George, 2012). The most marked difference between the two communities is the greater emphasis that schools place on using loss avoidance. It is used more often than other motivational drivers as a means of deterring poor behaviour than other motivational drivers. A second factor which shows a greater difference between the two communities is that schools have very little emphasis on ownership and possession as motivational drivers.

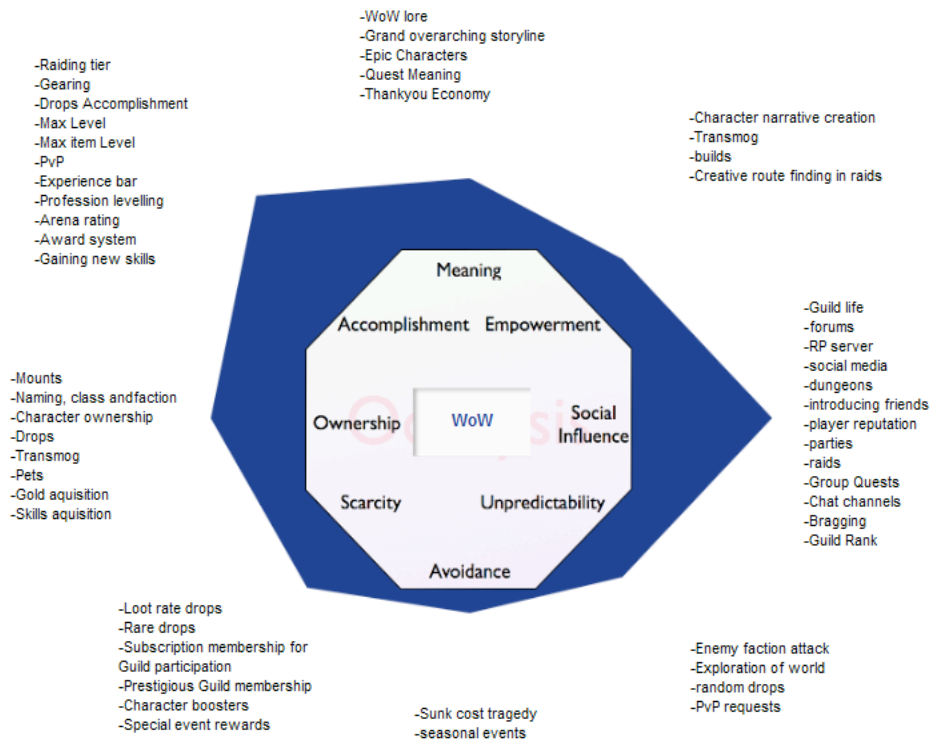


Figure 5: Octalysis for World of Warcraft

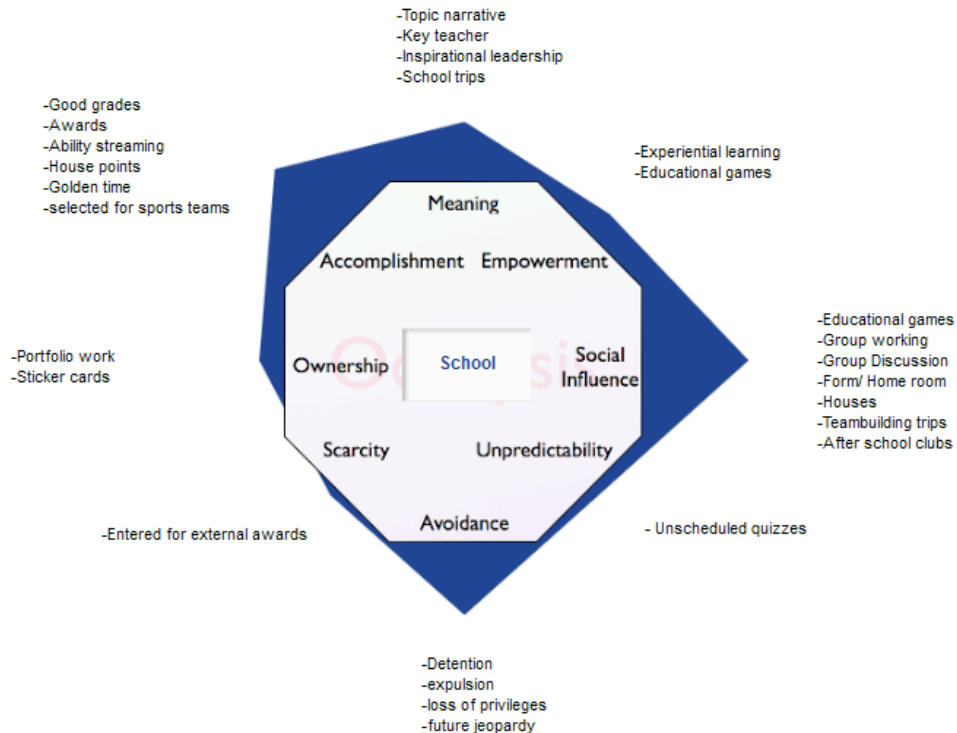


Figure 6: Octalysis for Schools

Conclusions  
 Despite the many criticisms that educators make of computer gaming, the @MINDSET project believes that there are some positive lessons that can be learned

from MMOG communities for managing diversity in school classrooms. There are significant lessons from the Meso Level and the Environment in games that may be usefully applied to schools.

The first lesson that can be learned from MMOG communities is from the Meso Level Group Factors. While the practise of creating "concocted groups" is a practical way to organise large numbers of students in a school community, it does not make the groups necessarily cohesive or productive. If there were a way of allowing "self-organizing groups," such as those found in MMOGs, to form naturally as a part of the planned structure of the school community and have these groups work towards their own shared goal it may increase the quality of their performance and satisfaction levels and reduce conflict and discrimination.

The second area in which schools could learn an important lesson is in Environmental Factors and the use of motivational drivers. The heavy reliance by schools on loss avoidance as a motivational driver has a significant effect on student relationships as this is termed a Black Hat motivational driver. The heavy use of Black Hat motivational drivers has been proven in computer games to be demotivational they cause feelings of powerlessness, a lack of fulfillment, dissatisfaction. and a lack of control. In contrast, motivational drivers such as ownership and possession encourage engagement and cooperation, and therefore improve social relations within the school. A conflict prevention programme, such as the @MINDSET managing diversity curriculum, is a long term investment for a schools. It needs to take a multi-faceted approach, learning lessons from other activities in which young people engage with minimal conflict. Evidence from MMOG communities suggests that focusing on group formation at the Meso Level and motivational drivers might be useful in creating less conflictual and discriminatory classrooms.

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