

**Open Learning:  
Transforming Education  
For Development**

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**The Yukon Experience  
In Overcoming Barriers To  
Educational And  
Economic Development**

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## Abstract

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The authors present several developmental models used in the Yukon Territory to overcome barriers to educational and economic development. The local Yukon College has been successful in working with communities that have diverse and challenging needs for education and economic development. The theoretical framework of Universal design in education is developed and applied to the growth of learning in the territory. Specific barriers such as geography, cost, cultural development etc. and adaptive processes such as community campuses and advisory committees are discussed with reference to the developmental models. The importance of creating partnerships and building coalitions is explained with reference to the creation of learning networks and educational programs. The concept of community learning networks using adaptive technology is presented as the future form of development in education.

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Canada has been recognized by the United Nations as one of the best places to live in the world. It is considered to be a nation that has significant advantages for its citizens. While this may be true, it is also true that areas of Canada face challenges and issues as daunting as any of those faced in other commonwealth countries. Canada's geography and population distribution cause barriers to accessing long-term economic development and adequate infrastructure for growth in education. This is particularly true in the North of Canada. The Yukon being in the farthest North West Corner of Canada, above the 60<sup>th</sup> parallel and on the Arctic Circle, faces its share of challenges. The reality of the North is different than what most people believe. As Quigley points out the reality of believing what is true differs with the group to which one belongs.

The name Yukon conjures images of stalwart fellows "moiling for gold" and facing the challenges of the North; or rugged lands inhabited by aboriginals living off the land as romanticized by Jack London and Robert Service. While it is true that the citizens of Yukon have been the hewers of wood and drawers of water, gold miners of the Klondike, hunters and trappers, the Yukon has progressed and prospered in the 100 or so years of its formal existence.

The Yukon is a large land with a very small population who has limited resources in a rich country. The territory has been seen as the Hinterland, a place to be exploited for the benefit of the rest of the country. A glance at map will show the physical isolation of the Yukon. Three air hours north of the nearest city - Vancouver, 7 air hours from Ottawa, the capital city of the country (the very location that the Yukon was, at one time, administered). The geography of the territory has been a significant role in economic and educational development. Further the communities that exist in the Yukon have evolved with distinct values and points of views. The social and political communities of the First Nations in the Territory and the remaining population of the Territory compound the barriers to development in the Yukon.

One of the tools a society has to draw on is its' peoples and community together is education. A literate, educated population that has the capacity to effect the surrounding political, and social environment is key to the economic development of a community. As will be seen in this paper the Yukon as evolved from a centralized, paternalistic, externally focused paradigm to an open networking process with coalition building through partnerships. For the purposes of this paper we will consider networks to be the means by which communities and individuals come together to learn.

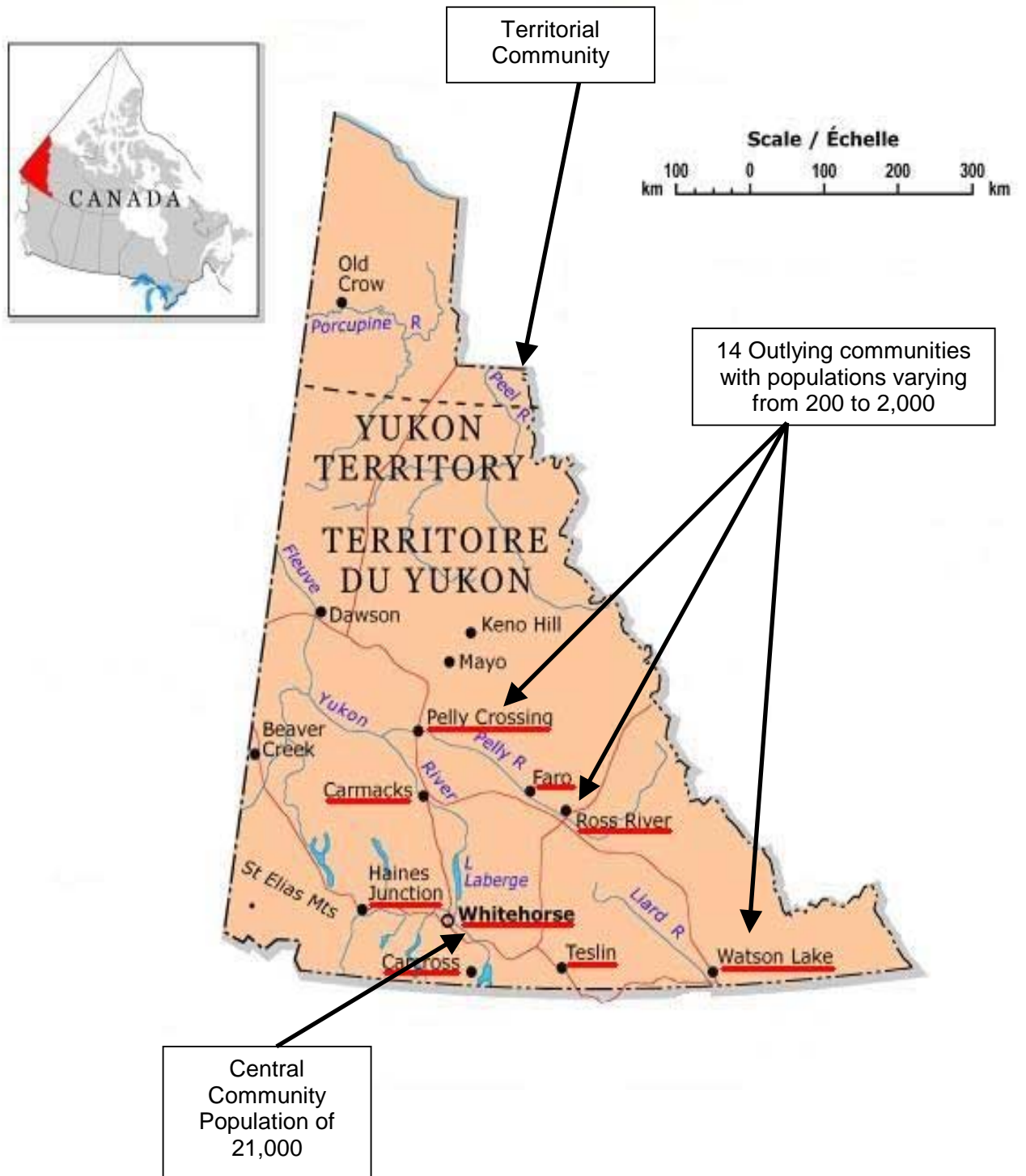
The purpose of this paper is to identify and explain the process that created the community campus system for educational development in the territory. We will present a conceptual framework in a historical context for developing an effective learning network.

## **COMMUNITIES**

A central premise for the network of educational development is the concept of a political or geographic area that is comprised of several communities and a central larger community. The Yukon has one central city, Whitehorse, with the largest population, and 14 other geographically separated communities of up to 600 km to one community that is 5 air hours away. This situation can also be found in a population centre where the divisions are cultural rather than geographical areas such as Vancouver or Montreal. The communities may be divided by cultural understandings but are geographically close. A third combination of factors, as is developing in the Yukon, is where there is a physical and cultural division created by geography, culture, political responsibilities, and history.

In order to make sense of the syntax this paper will call the smaller unit – town, village, area, cultural group, etc. the “*community*” and the larger center the central area or dominant culture, city, etc. The “*central community*”; the whole collection of communities will be referred to as the “*territorial community*”.

Figure 1 Map of the Yukon Communities



The following chart identifies the larger geographic communities in the Yukon Territory. <sup>1</sup>

**Figure 2 Population of the Territory Communities**

Community	Population	Distance from Central Community
Beaver Creek	117	580 km
Dawson City	1,587	650 km
Mayo	443	480 km
Carcross	404	120 km
Carmacks	425	200 km
Whitehorse	22,545	----
Faro	388	520 km
Haines Junction	777	200 km
Pelly Crossing	310	330 km
Ross River	374	620 km
Watson Lake	1,593	454 km
Teslin	454	195 km

We may also consider that the communities are created by other factors than geography. This concept of community was legislated in the Program Advisory Committee (PAC) in the College Act, passed by the Yukon Legislature. The PAC membership was mandated representation by each Community Campus Committee, first nations, women's groups, justice, industry, private enterprise, and federal government, among others. The sense of community was broadly drawn to reflect the values and needs of the members of the Yukon (territorial) community

### **PROCESS OF DEVELOPMENT AND BARRIERS**

In general terms it is argued that more education and more development is a good thing. There is a clear correlation between levels of education achieved with diversified economies and increased economic development. While the correlation may exist on a socio-economic basis it does not necessarily exist in the promotion and development of educational programs and nascent economic development. If

<sup>1</sup> [www.yukonweb.com/government/ybs](http://www.yukonweb.com/government/ybs)



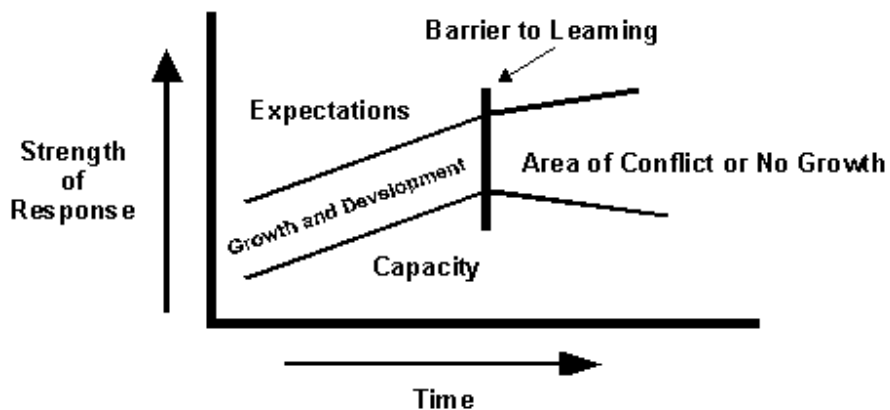
a central authority acts by providing just more money or teachers or books or shovels or buildings or TV's this will not provide a high quality education nor provide substantive economic development. In reality, more of what is needed or wanted at the local community level will provide more effective education and development.

The difference in the schemas is the ability of those directly effected to choose what is effective or needed for them and their community; it the ownership of a process that provides the economic and educational development. *“The key element of the Universal design paradigm expects that designing educational programs must maximize the usability or access to education and economic activity within the appropriate environments”<sup>2</sup>*. Therefore to be successful the delivery of education through an effective system must recognize the local needs and an understanding of the environment.

Imagine if you will, a truck unloading several crates of software and computers and cables in a community. This is a great educational opportunity until it is realized that the community really needed a generator to provide electric power. The technology of computers is remarkable but if they cannot be used then you have very expensive paperweights and doorstops. Too often education and economic development is the purview of the outsider and not the member of the community. The conflict arises when the expectations of the community do not meet the understanding of the outsider nor does the capacity of the community meet what the community expects.

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<sup>2</sup> Bowe, Frank G., *Universal Design in Education*, Bergin and Garvey, Connecticut, 2000, page 2

**Figure 3 Relative Expectations and Barriers**

The above model attempts to describe the situation found in most communities that are dependent on a central or territorial community. Over a period of time the community has a perceived expectation of what should happen or will happen in terms of jobs, education, living standards, etc. The expectations may be generated by whatever means is appropriate to the community. Generally the expectations are phrased as: 'we should have that', or 'we could do that here', or 'I do not want to move to work', 'I want to stay with my family', or 'I think we or I should...'. .

It is then expected that the community will work towards the expectations that have coalesced in the community. Arguably, the expectations will exceed the reality of the capacity to fulfill the expectations. It is a truism that a man's reach may be exceeded by his vision but then this can be the engine of growth and development by creating a vision to work towards. The differential between the expectations and the reality of capacity to meet the expectations results in a natural tendency to provide the impetus for growth. As the capacity for development by the community increases so does the expectations expressed by the members of the community.

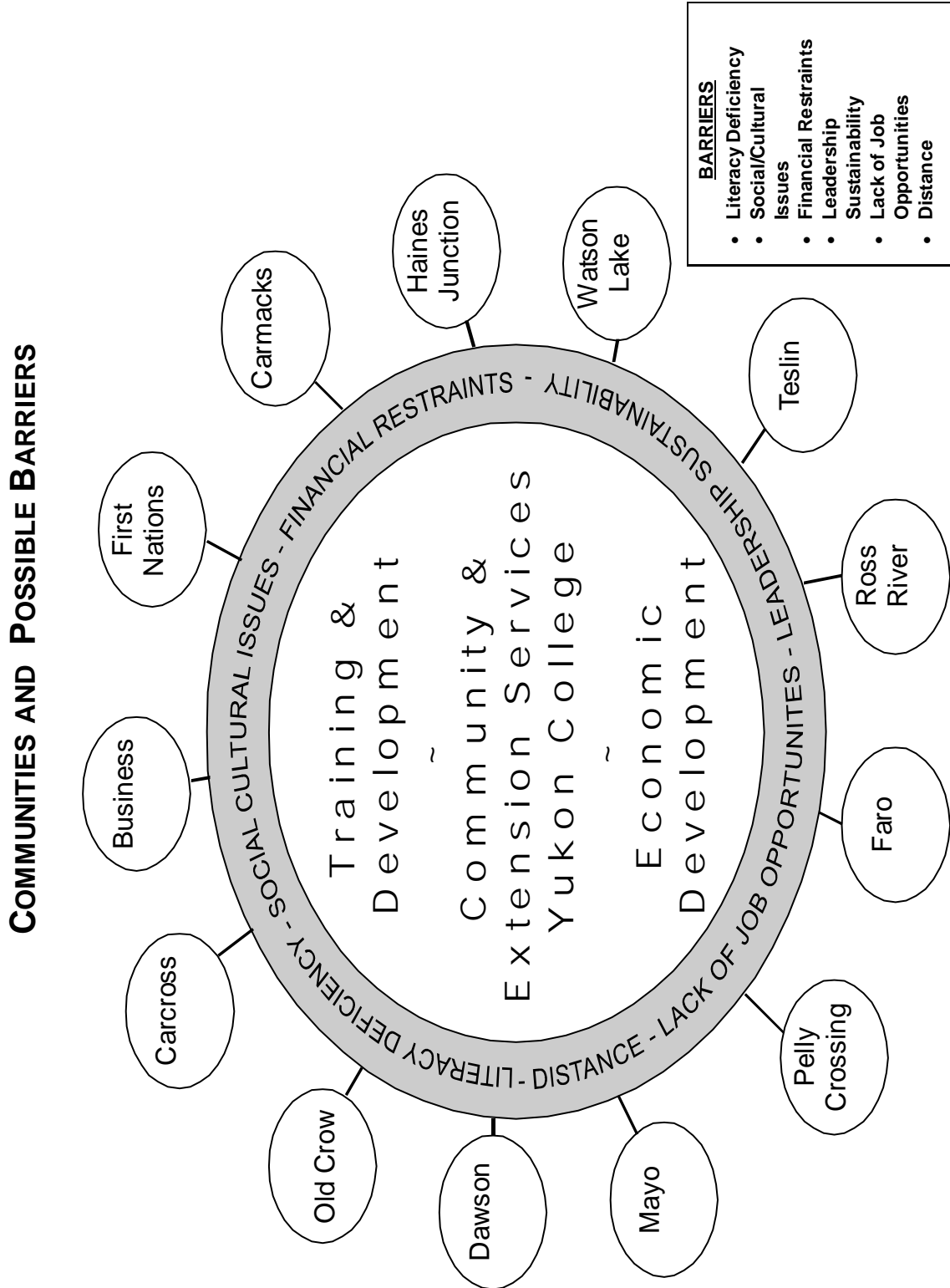
The model will remain functional if the expectations and capacity are within the competencies of the community. If the community is reliant on the outsider for capacity and this does meet expectation then the model becomes dysfunctional

and there is potential for conflict. If communities require resources, education, programs, and funding, from the central community then barriers to accessing these values may be erected. The barriers arise because of differentiated values of the communities. The central community will not view the expectations or demands of the smaller communities with the same commitment as the local needs of the central community where decisions are made. The allocation of values or political process as outlined by Parsons would predict the conflict when there is not an equitable distribution of values. As the gap continues to grow between the expectation and capacity more conflict will arise over the allocations. The barriers must be removed before the functionality returns and the conflict is lessened.

The issue then is how do we match the expectations and capacity of the participants in the local community to the capacity and perceptions found in the larger state or country community. The first step in overcoming the barriers is to establish a system or process that allows full participation by the various communities. Because of the barriers inherent in the development of a community, a uniqueness of community forms and requirements for operation occurs. Any organization that wishes to work with the community must recognize the reality of the community. In addition, they must also legitimize the requirements of the community.

From the above it becomes important to identify significant barriers to learning and development for communities. These barriers may vary in severity from community to community but must be addressed for the networks of learning to be effective. See Figure\_4

Figure 4 Communities and Barriers to Development



The location of the community has a direct impact on the learning programs. Distance is a very real problem in the Territory. The physical distance from rural communities and the central community is difficult for individuals to overcome. When this combined with the weather conditions in the territory during winter travel can be life threatening. The more subtle issue of geography is the removal from the community. Living away from home places a high economic and social cost on the individual.

The barrier of cost has two dimensions. The first is the real direct expense of travel, accommodation, meals, tuition, loss of income due to time away from work. A weekend course can have a direct cost of up to \$600.00 in basic expenses in addition to the costs of tuition and books raising the cost to \$1,000. Some courses that have been offered require the participant to come to the central community for four weekends over three-month period. If an individual has low or no income, these costs cannot be met and the individual is barred from participation. The second dimension is the loss of a job and income in order to go to school. Without income, the person cannot support their family. This has been a very real situation for many students who do not have financial resources or a supporting family.

Actual cost is not the only direct barrier to acquiring skills and learning in rural communities. In the close, clearly defined community there exists significant family support networks. There is a direct emotional cost to the individual if the support network is not available. If the learner is required to move from the local setting, the support network for the individual will not be available. For example, if the student is a single parent with children who cannot afford day care they must rely on family or friends. By moving to the central community, they are faced with the choice of leaving their children or not going to school due to costs such as childcare. This issue is also reflected in young people who leave the Territory for

post-secondary education. Lack of local support increases the likelihood of non-completion.

The extent to which individuals can gain new skills is directly related to the accessibility of the program. You cannot become a welder without using welding tools. If the tools needed to learn with are not available locally or in the central community or territorially, then skills will not be developed in local communities. This can also be shown by access to university degree programs for individuals. Teachers have been trained outside away from the local dynamics, and many professionals have not been able to continue their learning since there has not been access locally. Therefore, the growth is delayed due to the lack of programs that are appropriate to the Territory. One significant example of this is the Yukon Native Teacher Education Program (YNTEP). Prior to this program, all native teachers had to be trained in institutions outside of the territory. The programs were focused on issues and programming appropriate to other locations rather than the Yukon. With the advent of YNTEP, local people are trained to be teachers locally in settings they will be working. This program is a partnership between the University of Regina and Yukon College. The University provides the accreditation and oversight for academic standards and Yukon College delivers the program locally. The result is that we now have Yukon people trained in the Yukon to be teachers in the Yukon.

Lack of jobs and local economic activity provides a barrier by limiting the options available to the members of the community. This situation is self-perpetuating since if there are no jobs then the learners do not need to learn skills for work. If the types of jobs available require few skills then only those skills are learned. Forcing the training issue at this point will not provide direct development. Training people for jobs that do not exist is also counter-productive. The problem that the community will face is that there are no options to learn skills that can be applied in the local community. There is no place to practice the learned skills. The Youth Employment Training program is an example of how this barrier can be overcome

by educational institutions, private industry, and government, creating partnerships to teach skills in the community that are appropriate to the individual and territorial community.

A barrier that tends to be very subtle is the lack of experience in educational programs and the knowledge of costs and social expectations found in educational institutions. This may be considered to be a literacy or knowledge skill. The knowledge of how to use the educational system, to be literate in the language and conventions and protocols of the system determine if you are able to work within the system. It is like not being able to read. You need the knowledge and skills of language and reading to understand what you need to do and to know. If you do not have the tradition or experience in this system, you cannot participate or succeed. Therefore you are limited in accessing the programs, which you require.

### **DEVELOPMENTAL NATURE OF TRAINING/LEARNING SYSTEMS**

Moving from small achievements to great accomplishments is the symbolic status of what is today termed Community Campuses (CC). These used to be called Community Learning Centers in communities with a population base of 220 to 1600 citizens. For all practical purposes, the campuses are really learning villages, which have grown into state of the art campuses, where multi-level training is carried out today. This though has become the best human capital investment in education, health, training, and trades related areas.<sup>3</sup>

Up to 22 years ago, all training was centered on literacy. Starting about 16 years ago, a change in concept took place to move beyond literacy training. At the time there were some major barriers to overcome,

- Distance of Yukon villages and small towns from the main Yukon College Campus.
- Cultural and social issues.

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<sup>3</sup> Robert Putnam, 2000, *Bowling Alone*: Simon and Schuster, New York

- What could be termed a lack of motivation, but which could have actually been limited vision and a lack of insight at the time.
- Inadequate educational/community leadership.
- Lack of job opportunities/economic development.
- Cost of tuition and books appeared high to citizens who were not familiar with the cost of education.

A network of community learning centers was developed in 10 communities as a starting point. That has since been increased to a total of 13, plus the availability of having itinerant instructors to service other areas not large enough for one of the learning centers. During this same period, a network of community advisory committees was instituted to provide advice and recommendations to Yukon College administration as well as what would be given the new identity, known as Community Campuses today.<sup>4</sup> Using principles of Social Systems Theory<sup>5</sup> Yukon College embarked on a process of bringing citizens together with teaching/learning goals as a major priority. Due to the fact that the cost for tuition and books appeared to be high, there was a barrier for many that wanted to access training and education. To that end, the Ministry of Education in partnership with Yukon College administration instituted low tuition fees that would include books as well, plus a bimonthly training allowance for the students who were attending classes full time<sup>6</sup>. This was akin to invoking community capacity building, as several multi-level partnerships had to be developed to overcome the apparent barriers

The intent and purpose has been accomplished over the ensuing years by making education and training more accessible in Yukon rural communities. This work helped in the creation of promoting a life long learning culture in these communities.

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<sup>4</sup> Capra, The Web of Life: Anchor Books, New York, 1996

<sup>5</sup> Parsons, T. Essays in Sociological Theory. New York: The Free Press, 1967

<sup>6</sup> Keating and Hertzman, Developmental Health and the Wealth of Nations, Guilford Press, New York.



## **CONSENSUS, COALITION AND PARTNERSHIP BUILDING**

To meet the diverse needs and overcome the barriers to learning and economic development, a process of decision-making and allocation of values or resources needs to be in place. The success of the process in the Yukon is, in part, the focus on creating working and sustainable partnerships and coalitions. As the Territorial community moved from a paternalistic hierarchical system, a process of dialogue was imbedded in the network being established. The initial step of Community Learning Centers and the advisory boards allowed for the voice of the local communities to be heard expressing the needs of the communities.

To explain this process of development we have turned to the concept of Universal Design. This is, in some sense reverse engineering. The process grew intuitively on a local and territorial basis. By building a consensual approach to partnerships, the adult education system was validating the work on Universal Design.

When discussing Universal Design in education, Bove states that “(it) is based upon the premise that by preparing to meet diverse needs, we will better serve people with no special needs”<sup>7</sup>. He refers to a 1997 report by the National Academy of Sciences<sup>8</sup>

“(the report) suggested that responding to multiple needs means acting along three dimensions:

- ❑ Learnability (ease of learning)
- ❑ Modality and medium of independence (ease of use), and
- ❑ Supporting group activities (interconnectiveness) “<sup>9</sup>

In the case of the Yukon learning community the development of the Community Campuses and local programs have addressed these dimensions. Arguably, if the concept is effective teaching in the classroom with students then the form of the system that evolves the education should follow the function to which it is intended.

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<sup>7</sup> Bove, Frank G., *Universal Design in Education*, Bergin and Garvey, Connecticut, 2000, page 10

<sup>8</sup> Biermann, 1997 titled *More Than Screen Deep: Toward Ever-Citizen Interfaces to the Nation's Information Infrastructure*

<sup>9</sup> Op sit page 36

Therefore the system that has been created has a high level of “Learnability”. Students can learn in the communities in a manner that is appropriate to them. The barriers of accessibility have been overcome by the use of local course delivery and the future planning of distributed learning. Lastly, the College has shown a clear support of the network of learning and has encouraged the development of very strong community ties within the learning networks of the territory.

It can be seen from the following summary of the Universal Design Model that the system of learning in the Yukon has been meeting the tenets of Universal Design.

*“Teachers at all levels, from preschool to K-12 to university programs to adult and continuing education, now deal with a remarkably diverse student population. Growing numbers of students have such disabilities as attention deficits or learning disabilities. Many older students have impairments of hearing and of vision. Large numbers of students come from cultural traditions other than Euro-American, Judeo-Christian Western ‘white’ culture and for this reason bring different expectations to the classroom... Meeting all the tremendous variety of needs these students present is not something most teachers can do. What is possible is to design and deliver instruction that responds to most of these needs... universal design is a design approach that maximizes the usability of products, services and environments for everyone – young people and old, short people and tall, people with disabilities and without.”<sup>10</sup>*

The ease of learning the process or system is seen in the training and development of local committees and the continued support for the process. Members of the community are invited to participate, shown how to contribute to the process of decision-making. There are no barriers to entering the process and indeed members of local communities are encouraged to participate and encouraged to join a coalition for learning and development.

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<sup>10</sup> Bowe, Frank G., Universal Design in Education, Bergin and Garvey, Connecticut, 2000 page2

The independence of the Community Campus Committees can be seen in the legislation of the College Act. The local needs are given voice at the local level and the territorial organizations and communities are mandated by legislation to listen and respect the wishes of the community.

Yukon College continues to support the community's activities by providing the resources to promote the interconnectiveness of the Campus Committees. Funding was provided for teleconference meetings to discuss issues of common interest. Regular meetings and conferences were sponsored and funded by the College. This allowed the local communities to gather, identify, discuss and come to common resolution on issues germane to the Yukon community. This was further supported by legislation in the formation of the Program Advisory Council whereby there was a legislated responsibility for the College and the Ministry of Education to listen to the advice of the various communities in the territory.

At Yukon College, the Community & Extension Services Division, which is responsible for the implementation of programs in the communities, believes that the implications of the Universal Design concept expand even further; by substituting disability with an even more encompassing term such as diversity and by incorporating as well, program design and choices into the equation, the needs of the adult learners of the Yukon communities can be met.

In applying the process of universal design we consider the following 5 points. These are critical in the development of an effective network or delivery model for adult education as it is applied to the development of Community Campuses and programs.<sup>11</sup>

1. Equitable use: The design does not disadvantage or stigmatize any group of users. The location of the learning is appropriate to the learners and all

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<sup>11</sup> Developed by the Center for Universal Design at the School of Design, North Carolina State University at Raleigh Mace, R., *et al.* 4/1/97

- members of the communities have access to the learning program. In the case of the Yukon, we have Community Campuses in the regional communities and we provide access on an as needed basis, based on the needs of the community. Courses in literacy, first aid, air brakes, driver training, camp cooking, early childhood education, adult up-grading, and university and postgraduate courses are all available to the members of the communities.
2. Flexibility in use: The organization responsible for development and delivery of programs must allow for individual differences in the communities. One set of rules will not be satisfactory. Rather, the programs need to reflect the needs of the community and not erect barriers to the community. This flexibility is extremely difficult to maintain. However, it is critical to development. For example, minimum student enrollments required for programs to be offered may be appropriate for large communities but are not appropriate for small communities. In Yukon College's case the central administration insisted on eight students to be enrolled in a course before it was offered. Many communities would not have five people in the entire community that could take the course and of them maybe three wanted to take the course. The College, after great debate and pressure by the communities, removed the rule and put the responsibility on the local campus to find solutions to deliver the course without undue expense. The campuses met the challenge and have successfully offered courses to small classes in their communities by using technology, tutors, mobile labs and so on.
  3. The design will accommodate a wide range of individual preferences and abilities: The amount of resources available will dictate the totality of courses. However, by providing effective communication forums such as Community Campus Committees, a program advisory council, and direct access to industry advisory networks, the College attempts to meet the emerging needs of the Yukon territorial community. This principle can be seen in the breadth and number of courses offered by Yukon College.

4. Simple, intuitive use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. The Community Campuses in each community provide that access point for all members of the community. It is easier to obtain information from a member of your own community rather than someone who is distant and unknowing to the community. As one Campus Coordinator reported, members of the community would approach her at any time or place to discuss courses or individual needs. These places included, weddings, shoveling gravel at home, church socials, parent/teacher interviews, during holidays, grocery shopping, among other times. The immediate and personal contact with the organization (or its representative) promotes direct simple and purposeful use of the organization.
  
5. Perceptible information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. Another way of thinking about this dimension is to consider ownership of the information or organization. By stressing the community nature of the local campuses, the information is available to the members of the community. They "own the campus" and participate with the campus in meeting community needs. It is the 'ownership' that is the critical value for the community to help remove the barriers to educational and economic development. It is difficult to overstate the importance of this concept.

## **THE EXPERIENCE OF YUKON COLLEGE DEVELOPING A COMPATIBLE DESIGN**

The following discussion fleshes out some of the issues and barriers that have helped to shape the networks of learning in Yukon Communities. To a great extent the barriers have been overcome or removed and as such, Yukon College is delivering programming in communities that is appropriate to that community.

Location: Isolated communities (villages), one of which is a “fly in” only community (Old Crow), with a five day per week flight from Whitehorse to Old Crow return. There is a river system, which could take three to four days travel, which would not be of benefit to major economic development. Although the community is isolated, there is a public school (elementary) system for the first nine years of a school age child (9-15 years of age), at which time the students attend the last three years of high school in the capital city of Whitehorse.

For adult education training (post secondary/trades training/academic/skill upgrading), there is the Alice Frost Community Campus of Yukon College (a purpose built facility for adult education) that provides community based education training as requested by the community, plus other related training as described above. In this community, the Vuntut Gwitchin First Nation would be the largest employer, followed by the Government of the Yukon. Most other jobs would be of a traditional nature. The nature of employment, and the need for employment and economic development is still not adequately met.

Cost: This is related to the above. The community is predominantly First Nation, and even for those directly employed by the First Nation, their adult education/career/professional development training is paid for by their First Nation administration. For those that are unemployed and attending the Alice Frost Community campus in a full time program, there is a student subsidy called the Student Training Allowance (STA), managed and administered by Advanced Education Department of the Government of the Yukon. Although Yukon College carries one of the lowest tuition fees in Canada, most of the citizens of this community would not be able to afford the tuition. It is significant to make note of item two, because for students who choose to attend full time classes at Yukon College’s main campus, the real cost for one academic year could be as much as \$14,200 for an 8 month academic year and \$17,240 for 10 months (this includes two return air fares for \$1200). Again, it is important to note that the student would

be eligible for special educational grants through their First Nation or through the Canadian Federal Government.

Family support networks: Taking the student to another village or the city for the training has presented difficulties for learners. We have had good examples in two specific communities regarding the inherent value of family support networks. Yukon College had the opportunity to provide Carpentry training in the communities of Ross River and Mayo, which requires a 5-year apprenticeship and certification (license in the trade for competencies and skills, approved through the apprenticeship branch of the Yukon Advanced Education Department). Ordinarily, this training would have occurred in Whitehorse at the main campus, with adequate laboratories for applied practices.

Carrying out the training in the communities, where students have positive networks, created an overall success in the first two qualifying examinations of 96%. We attributed that to the fact that the students were able to stay home and still were able to provide the following through family supports:

- (a) Parental guidance and care for their children
- (b) Role modeling teaching/learning perspective for their children (as in one community, the actual lab for the trades training was in the public school attended by their children)
- (c) In one community, spouses helped in tutoring their partners
- (d) The total community provides encouragement and support. Often the access to education, especially when obtained in the local community by the students, promotes sustainable mental and physical health as well as economic health (money within the family serves longer, stretches better, as those dollars are not shared in two places)
- (e) There is also an outward boasting of pride by the local community when there is a group of adult students in training

Access to programs: In most cases the access to professional and career training cannot be carried out in the local communities. It necessitates innovative approaches. For example, Yukon College has consistently searched out partnerships to provide learning in the communities. This has translated to joint venture agreements with universities such as the University of Regina and Alaska. These institutions have worked together with the communities in the Yukon to provide teacher training programs, Masters of Public Administration degrees, and Renewable Resources programs.

Cultural dislocation: Although we reside in a northern, isolated community, there are some citizens that are more isolated than ever by distance. The cultural opportunities and the familiarization of one's home community are entirely different from that of the citizenry in Whitehorse. In one's home community, it is a practice for one family to share their harvest hunt with several families. In the larger city of Whitehorse, you are mostly an "unknown", and that would not happen. This closely relates to the above examples. We have also observed what we term "culture shock", for someone who did not have to rely on public transit in their home community, experiencing severe difficulties in the big city. Lastly, some of the First Nation cultural events that occur in the small community may still be available in Whitehorse, but students may choose not to avail themselves of this.

Incompatible social visioning: The concept of having a continuous imagery of people who will espouse a certain philosophy, or model a certain task is important. Often, the vision of what we term "outsiders", which may be Yukon College faculty and staff, public school educators and their senior administrators, or government bureaucrats, just does not fit for a local community. Not just that it may be incompatible, it may just be totally inappropriate. A key example is our climate, which is approximately 60% winter, and requires buildings to be structured in unique and special ways. However, we have had at least two situations in the past 20 years where community buildings, project managed through Yukon



Government resources were neither conducive or compatible to the local vision, either from consultation or previous knowledge. In one case, a recreation building was planned and built by the Yukon government where hydroelectric power was inexpensive. By the time the building was completed the community could not afford to operate the building because of the cost of locally generated diesel power in the community.

Lack of jobs and local economic activity: Although we live in a country of wealth and affluence, northern Canada does not share in this. In most of northern and rural Canadian communities, job availability and access to jobs, including economic development, is not at a level that meets the local needs. The Yukon has been dependent on the cyclical nature of mining and resource based economies. When mining in our small communities is our major job access point and the mines have closed, the economic base is seriously eroded if not destroyed. In the past three years the mining economy has moved from slow to non-existent.

Lack of experience in educational programs, knowledge of costs etc.: Originally, this information on programs and opportunities was not available outside of the central community. We have now overcome this through having Community Campuses in each Yukon community. Each Community Campus has a resource centre for career planning and basic skill assessment. One of the major roles of the Community Campuses is to provide initial counseling for students with respect to programs, costs, and so on. Each campus now has Internet access to assist in the planning of programs for students.

Social maladaptation: This was referred to as “culture shock” above. Often the expectation in the home community (local village) is different from that of Whitehorse. It creates a perception of “city folks versus country folks”. It is the lack of understanding of the “unwritten rules” by the students that will result in certain areas of conflict. What may be tolerated or even condoned in the communities

may not be accepted in the central community or outside of the territorial community. This may lead to a very strong sense of dislocation and behaviours that are not consistent with the larger or more dominant culture or social structure.

### **DEVELOPMENTAL LEARNING BY LINKAGES AND PARTNERSHIPS**

The growth of the learning networks for Yukon College has been an evolutionary process. Over the last 16 years the College and communities have been working very hard at developing effective partnerships and coalitions for the benefit of the citizens of the Yukon. The learning paradigm developed by Yukon College in the Community and Extension Services Division is an integral part of the educational development in the Yukon.

Yukon College's philosophy is to take the student from his/her current point of learning and understanding, to a place in their learning path where the student can start attaining their learning goals. The concept of the Community Campuses in Yukon communities is preparing adult learners for their pursuit in education or training.

Dale Parnell in The Neglected Majority presents five realities that must be considered and used to create excellence in education:

1. There are vast individual differences among students of any age in speed of learning and comprehension of knowledge.
2. Development of basic skills must be placed upon a continuum of learning with students arriving at different points at different times. Excellence in education requires breaking the lockstep of arbitrary time requirements for learning.
3. Research suggests that given adequate time for learning, and favorable learning conditions, ninety-five percent of students can achieve mastery of any basic skills.
4. Some students learn rapidly by one method of instruction and more slowly under a different approach. However, after fifteen years of experimentation and experience in more than 3,000 schools, mastery teaching/learning appears consistently more effective than traditional instruction.

5. Every high school and college must develop standards of excellence. Excellence is just as important to the aircraft technician as to the engineer. The notion of excellence must be extended to every course and each student.<sup>12</sup>

In the Community and Extension Services Department of Yukon College, the term non-traditional student is used regularly. At the Community Campuses, our students in more ways than one are non-traditional students. The evolutionary processes that Yukon College Community Campuses have undergone over a sixteen-year period reflects the realities described by Parnell.

What is termed Adult Basic Education, Up Grading or Developmental Studies is the study path to acquire similar learning skills as in public and high school education. At Yukon College we do not stop at that, we integrate learning skills that link the knowledge and skills to career/vocational/professional development.

- The first example would be the delivery of carpenter helper's training in rural Yukon communities. This was an initiative undertaken by Yukon College through the Community Campuses in collaboration with First Nation administration, the Community Campus Committees, local Trust Funds,( the first of which was in Watson Lake), and key groups in the local communities. The College would cover the cost of instructors and a mobile lab, the First nation administration, Watson Lake Training Trust Fund (at the time) or key community group, plus financial contribution from the Community Campus Committees would cover the cost for materials and equipment. The students would be given a training allowance through the Ministry of Education or through the First Nation administration. Students had to use their knowledge of mathematics and communication skills in the training. The end result of this training or learning were renovated homes, new buildings in Watson Lake, Dawson City, Pelly Crossing and Teslin as well as rebuilding a site in Dawson City for public usage. The community and the students have a special pride in these accomplishments.

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<sup>12</sup> Parnell, Dale, The Neglected Majority The Community College Press Washington, 1989

- The same thing has been done in the mechanical trades and applied computer training through the teaching of Small Engines Repair and Computer Applied Skills in rural Yukon communities. Having mobile labs deliver this training by traveling from community to community again carried out this training. We learned very quickly as a College that the knowledge, skills and competencies of students was increasing rapidly, therefore new thinking was required as to how these communities were served. A decision was made that the College must have permanent computers at the Community Campuses. The CCC'S receive \$5500 annually as a discretionary fund. In 1990 the CCC'S made a decision to pool their annual discretionary funds to purchase Computers for a total cost of \$65,000 (during that period, the discretionary fund was \$5000 per CCC) to provide computers on a permanent basis at each campus.
- The above indicators were a regular occurrence of traveling mobile units to deliver the training in Yukon communities up to 10 years ago. An evolutionary process has occurred over a 16-year period. We no longer take a traveling mobile unit from community to community to teach computer skills, or Carpenter Helper's training. We now have over 160 computers in thirteen community campuses and we are now teaching Carpentry as full fledged training in preparing the students to write their qualifying licensing examination. Computer courses are now delivered on a regular basis in the communities with appropriate technical support. Most recently we have embarked on a mission to provide computer technician training at Community Campuses, as a basis to provide additional skills in the communities. Students are now pursuing certification in Carpentry, which gives them the required license in the trade and increases their salary through the apprenticeship period. Formerly, students desiring to acquire this specialized license were unable to do so, as they did not have the pre-requisites in education to obtain the training. It has to be mentioned, that it is not only in these specific areas that the evolution in learning acquisition

has been achieved. Through the developmental learning processes, we now have trained teachers, social workers, trades and technology graduates, Renewable Resources Technicians, and students pursuing college and university credits in preparation for other careers. Many of these students started at the point that has already been described as Adult Basic Education/Developmental Studies/Upgrading.

This could be viewed as much more than evolutionary processes, it could also be observed as excellence in teaching-learning.

## **PROCESS OF DEVELOPMENT**

The model of development in adult education has occurred over an extended period of time. To provide an understanding of the stages and the final outcome from the process, the following section will provide a brief understanding of the developmental process.

### ***Initial Situation***

The Yukon Act formally recognized the Yukon in 1898. At this time the Yukon was under the influence of the Klondike Gold Rush and the initial exploration of the Territory. From this time, and until 1942, the Territory was on the frontier. The population was small, isolated from the rest of the country, and focused on the development of mining in the territory. (See Figure 5)

Education was in the purview of parochial residential schools and little thought or development was completed for adult education. Post secondary education was completed “outside” at schools in the cities of Canada. The education system that did exist was for the benefit of a few locals that had come from other parts of the country and was highly centralized.

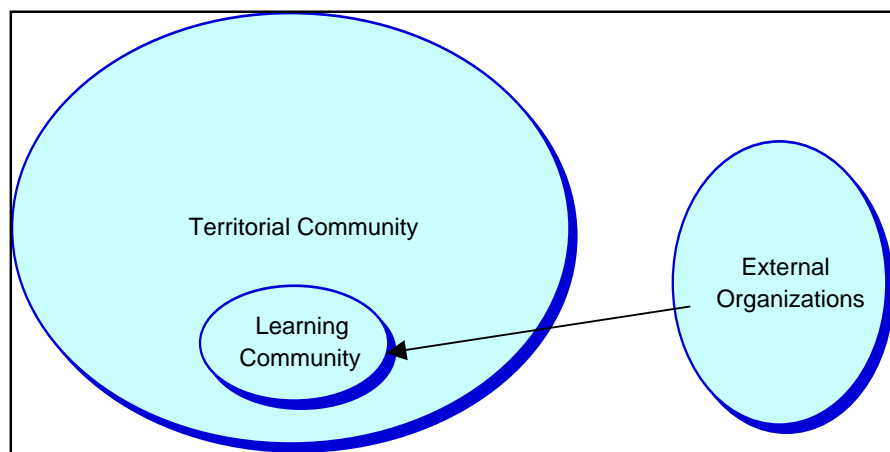
When the Alaska Highway came into the Territory in 1942, an infrastructure was created that allowed greater and easier access to various communities in the

Territory. It was at this time that the “residential schools” started to provide more tertiary education. Religious schools were located at Lower Post, Carcross, and Whitehorse. These schools were for elementary and secondary education and primarily for the “natives of the territory” (what is now known as the First Nations of the Yukon Territory). The initial attempt of the schools was to provide literacy for the “Natives” and to teach them the culture of the country. Sadly, this process was not always appropriate and led to a process of assimilation and acculturation. Today the residential schools have left their mark on the First Nations and as a result on the communities of the Yukon. It may be speculated that the residential schools have created a stronger and more urgent need for defined, educated and effective communities.

### ***Development of Infrastructure***

The completion of the Alaska Highway project brought significant change. Throughout the 1950 and 60’s roads were built, and basic infrastructure was developed in the communities in the Yukon. Power, septic, telephone, was being provided for the people of the communities. A part of this structure was the creation of local public schools in the communities that provided elementary grade education. Students were still required, by and large, to complete their secondary school in the central community and post secondary education outside of the Territory. The religious schools started to close in favour of the local schools under the jurisdiction of the Ministry of Education (See Figure 6)

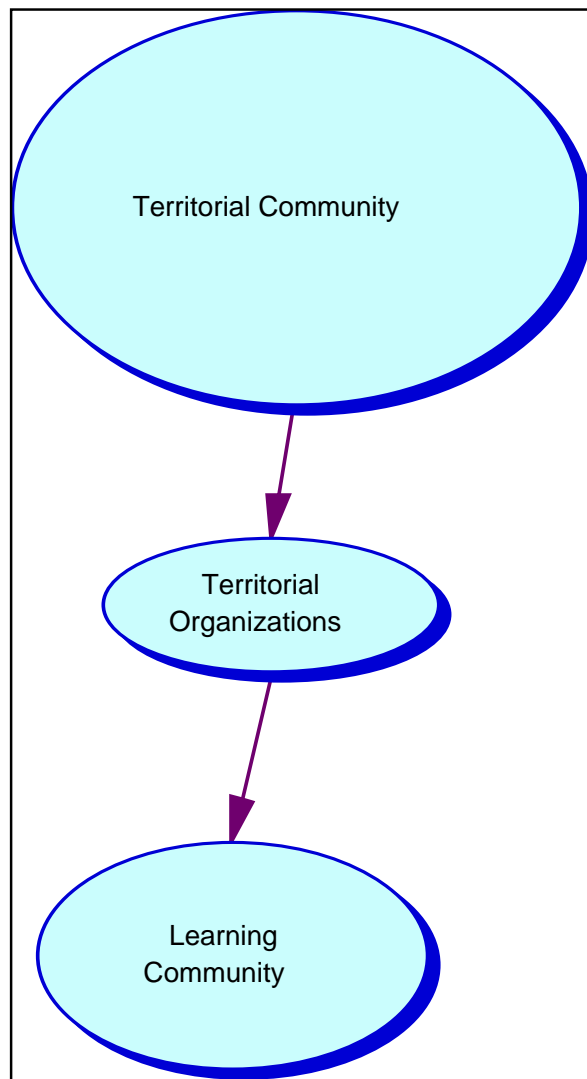
### **Figure 5 Initial Education Structure**



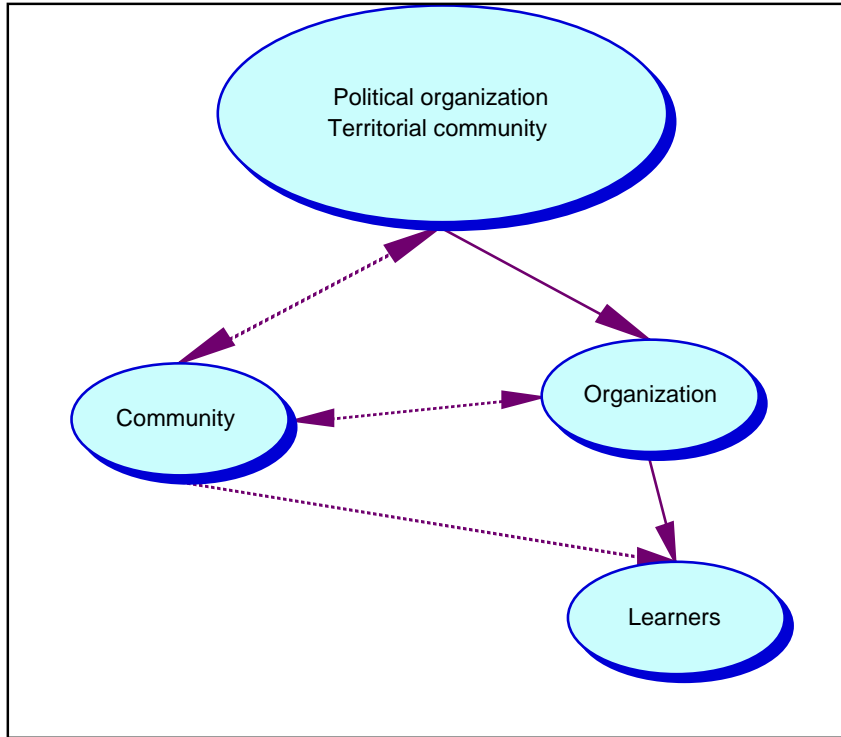
Adult Education was focused on literacy skills. The common upgrading program was implemented via community tutors to assist adults in gaining literacy skills for future training.

These changes were the first steps in addressing the barriers faced by people in the outlying communities and the beginning of program development and adult education in the Territory

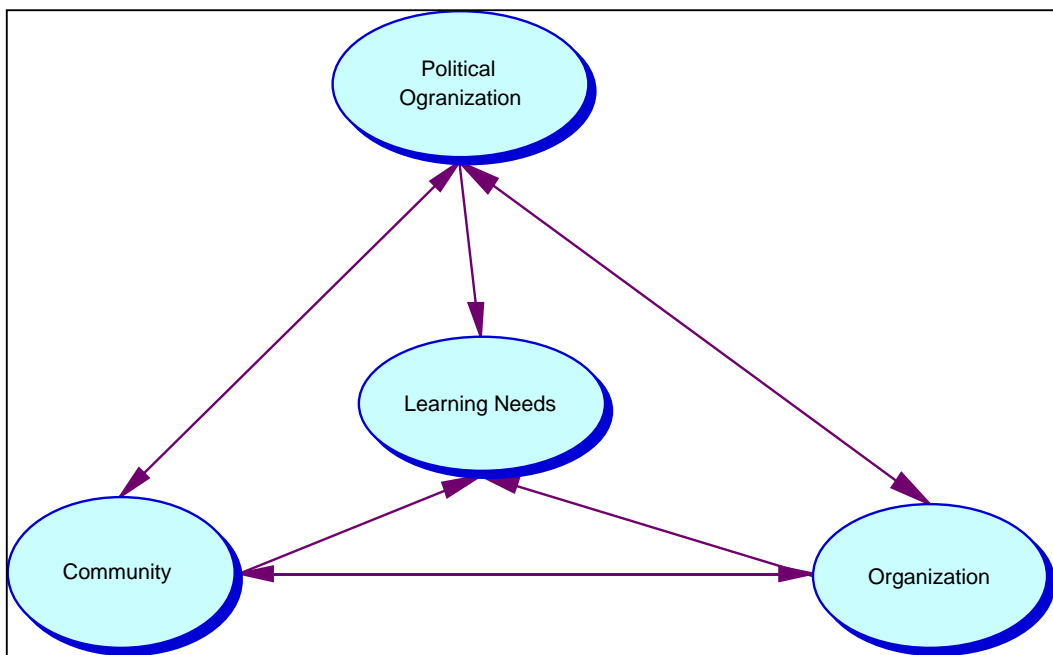
**Figure 6 Creation of Infrastructure for Development.**



**Figure 7 Initial Organization for Networks**



**Figure 8 Mature Organizational Format**





### ***Organizational Change***

The next significant shift was the formation of the Vocational / Technical College. It was at this stage that the local communities were also provided with Learning Centers. The impact of this change was to provide post secondary training in the Territory as opposed to outside the Territory and to begin the consultation and development process in Yukon Communities. This was the initial breakdown of the barriers to learning faced by communities in the Territory. Secondly, the structure was created that allowed a community voice in the developmental process. While the Community Learning Centers and their advisory committees did not have the authority or local skills to make significant changes, they provided the opportunity to overcome various barriers. Most importantly, the barriers to change and education was being addressed in the local communities and with the Territorial community. The focus of growth and development through education had shifted to the Territory and the various communities. Decision-making was being practiced in community with respect to the needs and concerns of the members of the community. (See Figure 7)

### ***Maturation of the Educational System***

In 1987 the College Act was Passed in the Yukon Legislature and created Yukon College. This act and the subsequent development brought about a mature educational organization. The legislation recognized the need for community involvement and right of the communities to be heard. Further, there was a responsibility placed on the College to hear the voices of the communities and to act on their recommendations. The significant and relevant portion of the Act was the creation of the Community Campus Committees (CCC) and the Program Advisory Council (PAC). The CCC were given the responsibility to advise on training needs and assist in the delivery of programs appropriate to the individual community. The greatest hurdle of geography had been clearly addressed. The PAC was mandated to provide the voice of all formal and informal communities in the Territory. The responsibility was to look at the Territorial community and advise on the training needs. Yukon College also took a step away from

governmental control and under the Board of Governors started to chart an individual approach to education in the Territory. (See Figure 7)

This change in structure provided the impetus to create change in the system. The voice of communities was heard in helping to physically build campuses to lobbying for particular programs. The result was as surprising as it was inevitable.

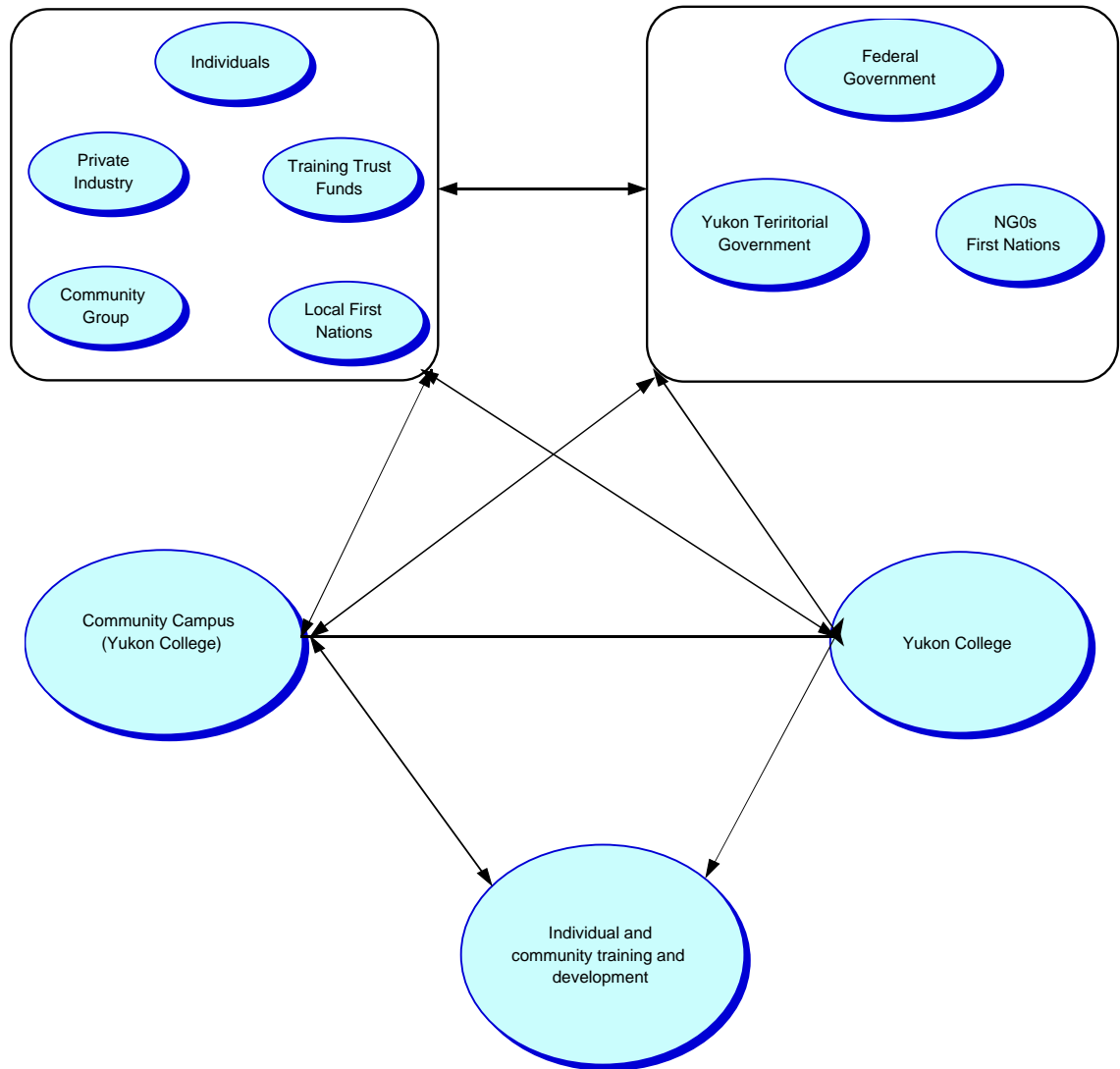
The Community Campuses took on the responsibilities, obtained funding to support programming and started to take control of local training. The efforts of the communities had direct impact on enrollments; on how courses were offered and provided local training for local needs.

### ***Partners and Coalitions***

Since 1997 there has been a greater pressure on Yukon College to meet the demands of the communities arising from the local development and at the same time face the reality of decreasing funding. In the intervening time there has been a growth in the levels of sophistication and organization in the Territorial community. To meet the new demands, Yukon College has used the existing model by identifying significant participants and bringing them together in partnerships

(See Figure 9)

**Figure 9 Current Partners and Coalitions and Partnership Roles**



One of the major changes in the political landscape was the signing of Land Claim agreements in 1993 by the First Nations of the Yukon. This has created a third level of government in the Territory. The First Nation Communities now have a clear role in economic development and education in the Territory.

Yukon College has now found itself as a broker of programs. As the lead institution in the Territory, the College is balancing the requests of the political arena as well as the community arena. The best example of this brokering is found in the Watson Lake Training Trust Fund. This fund was one of the first established by the Yukon Government to support local training in Watson Lake, a community some 450 km away from Whitehorse. Local people who had an interest in adult education and the economic development of the community administered the fund. As the chart below demonstrates, the trust fund was very successful in delivering programming to the community.

More importantly, however, for the purposes of this discussion was the need for Yukon College to negotiate partnership agreements between funders; the Trust Fund, and the Government of Canada and the members of the Liard First Nation in Watson Lake as well as the other members of the community of Watson Lake. This process of negotiation and consensus building provided the skills to Yukon College to create coalitions within the territory for future trust funds and training funding.

**Figure 10 Training and Development by the Watson Lake Training Trust Fund**

Time Span Years	People Trained	Training Advisory Funds	Yukon College	Cost Shared Partners Funds	Long term Employment Outcome
1990 - 1998	925	\$698,443	\$204,960	\$1,992,623	71.65%
1999 - 2002	350	\$212,544	\$43,277	\$513,438	80.00%

Population of Watson Lake and environs: 1,593

With respect to the communities, there is a clear expectation of programming and delivery of courses within the community. As a result of successful training and programs, members of Yukon communities have come to rely on local courses at the community campuses. Because of the increased expectations, there has had to be an increase in the capacity of local campuses and Yukon College at large.

## **FUTURE NETWORKS**

As this paper is being written, Yukon College is moving into new ventures in developing educational opportunities for the Territory. Through a partnership between the Federal Government, Yukon Territorial Government, and Yukon College, Yukon communities are now beginning to use Community Learning Networks based on new technologies. Funding by Government has provided Internet access for all communities in the Territory. Yukon College has taken advantage of this and is now experimenting with a new model of delivering programs and economic initiatives. The focus is using networks to disseminate information over a broad area for particular reasons. The intent is to use closely defined personal networks and technology to improve the learning and communication. Rather than relying on traditional networks as in Figure 10 below that tend to be point to point, the Community and Extension Services Division is developing a network with a central nexus that allows for immediate contact across the spectrum as in Figure 11.

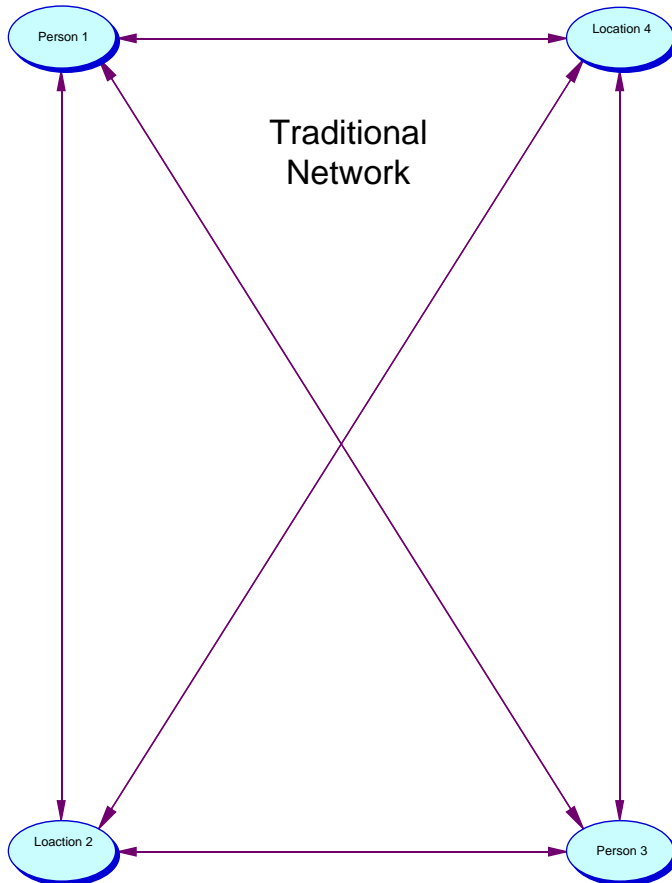
## **INTERVENTION STRATEGIES FOR CHANGE**

Moving from literacy to multi-level education and training via community development and community economic development processes, has been the significant contribution of Yukon College to the communities of the Yukon.

The notion of education as a life long process rings true in Yukon communities. We have come from a place of half-day classes, part-time studies and part-time, intermittent instructors to the full scope of education and training all year round. Through the network of Yukon College's 13 community campuses, there are 165 computers. This creates endless learning opportunities. The college, its students and citizens of the Yukon have also had the fortune of receiving approximately \$1-million in grants in the area of new technology from the Yukon Government and the Federal government, all for telecommunication and technology infrastructure,

plus computers. The present climate of a technological change has afforded Yukon College partnerships that increase its capacity in educational technologies.

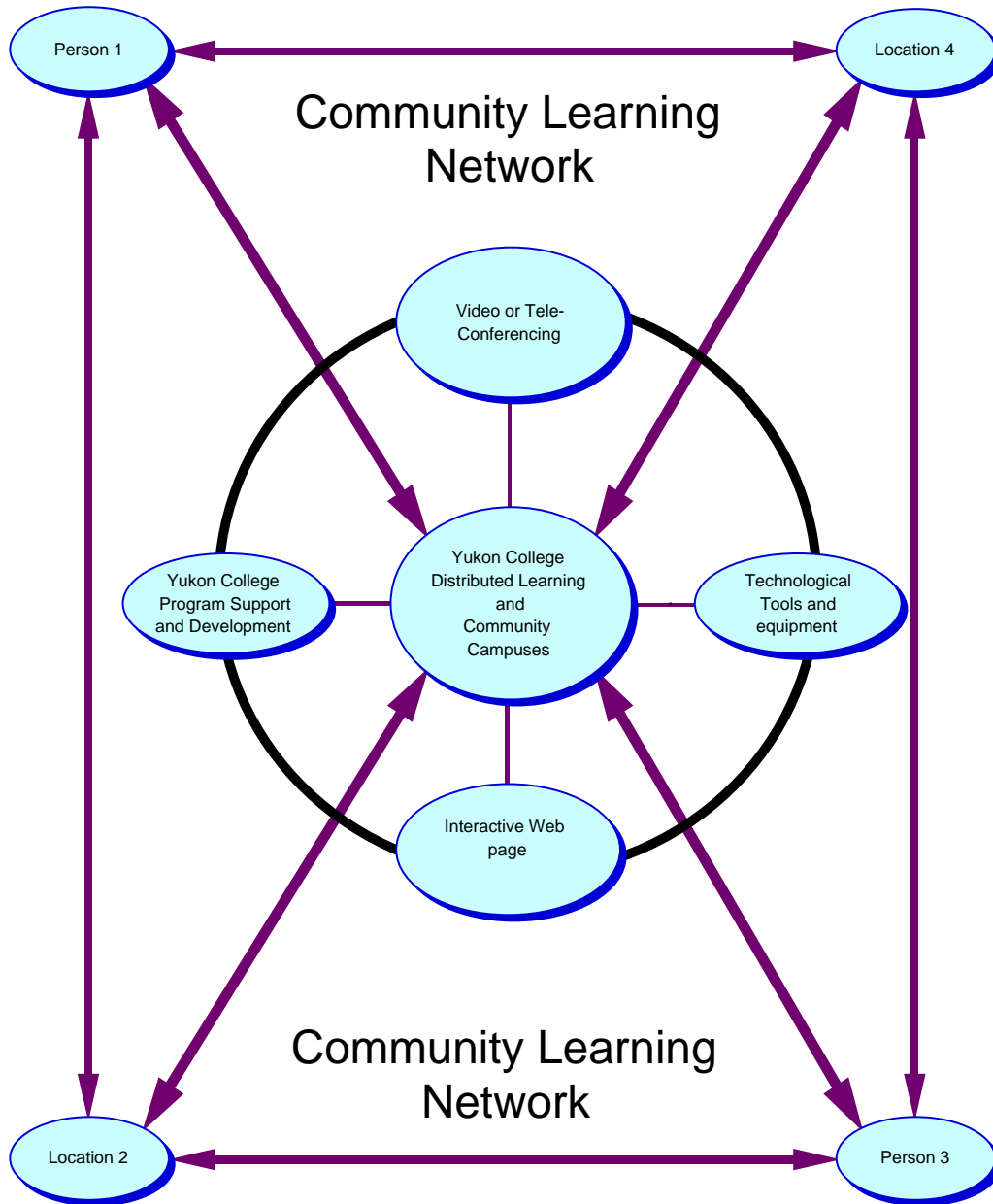
**Figure 11 Traditional and Community Learning Networks**



Currently the Communities and Extension Services Division – Distributed Learning – has initiated a 3-year program to work with Yukon Communities to build Learning Communities and networks (CLN). This project is a partnership between Yukon College, the Government of Canada – Office of Learning Technology, and the Yukon Government – Department of Advanced Education. The “CLN” project is developing networks of people who share common interests and wish to learn and communicate. This

partnership is further enhanced by the Youth Employment Training Program which is a continuing partnership between the Yukon College, the Government of Canada – Human Resources Development, and the Government of Canada – Department of Agriculture – Canadian Rural Partnership Program, the Government of Yukon, and several private businesses in the Yukon. These projects and programs will continue to be offered throughout the Yukon Communities.

**Figure 12 Traditional and Community Learning**



Communities are now empowered to provide advice and recommendations regarding their education and training needs. For the past 15 years each

Community Campus Committee has received \$5,500.00 in discretionary funding to assist with meeting the additional educational and training needs that are not normally met through the regular budget.

Additional multi-level partnerships through effective educational and community leadership, benefit the growth and development of community based education courses as well as regular academic courses.<sup>13</sup>

The program elements of coordination, planning and delivery processes at the community campus level continue to be the beneficiary of multi-level funding in continuing this successful process.

Some of the different technological applications that we have used to date, to deliver community services, training and education are:

- Connecting by regular telephone for information and instruction as to how the courses/training services could be carried out
- Teleconferencing
- Audiographics
- The use of video and audio tapes
- Internet, Web based interactive communication
- Computer assisted learning at local and distance sites
- Our newest addition – video conferencing capabilities.

Major accomplishments and achievements continue to come from the provision of education at a distance in our small villages, away from our main campus. This can be summarized as follows:

- Effective learning outcomes of community development principles and practices
- Utilizing applied principles and practices of community economic development

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<sup>13</sup> Blackburn, D.J., Extension Handbook Process and Practices, Thompson Educational Publishing Inc. Toronto, 1994, Chapters 9 and 10



- Sustainability and responsibility for the enhancement of development and training for a civil society

Parnell, in *The Neglected Majority* reflected on technology in education by stating that:

“Training and education have become integral to most broad-technology workers, whether they be nurses, law-enforcement officers, electronic technicians, aircraft technicians, computer operators, auto-service personnel, or marketing representatives.”<sup>14</sup>

This is true for the Yukon rural villages which all have Internet access through a Federal Government program affiliated with Yukon College. The program is called Community Access and is supported through Industry Canada. Each of the 13 Yukon College Campuses also has Internet access. This enhances both teaching and learning activities.

Yukon College partnerships transcend financial and educational partnerships. Yukon First Nations are a third level of government in our Territorial area. Within this context Yukon College has a partnership with Yukon First Nations, and serves in 12 First Nation communities. An important area of knowledge is the cultural knowledge and experience that can be gained from the First Nations. In each Yukon community except for Faro, there is a significant First Nation population. A.O.Kawagley in his book *A Yupiaq Worldview: A Pathway to Ecology and Spirit* declares that:

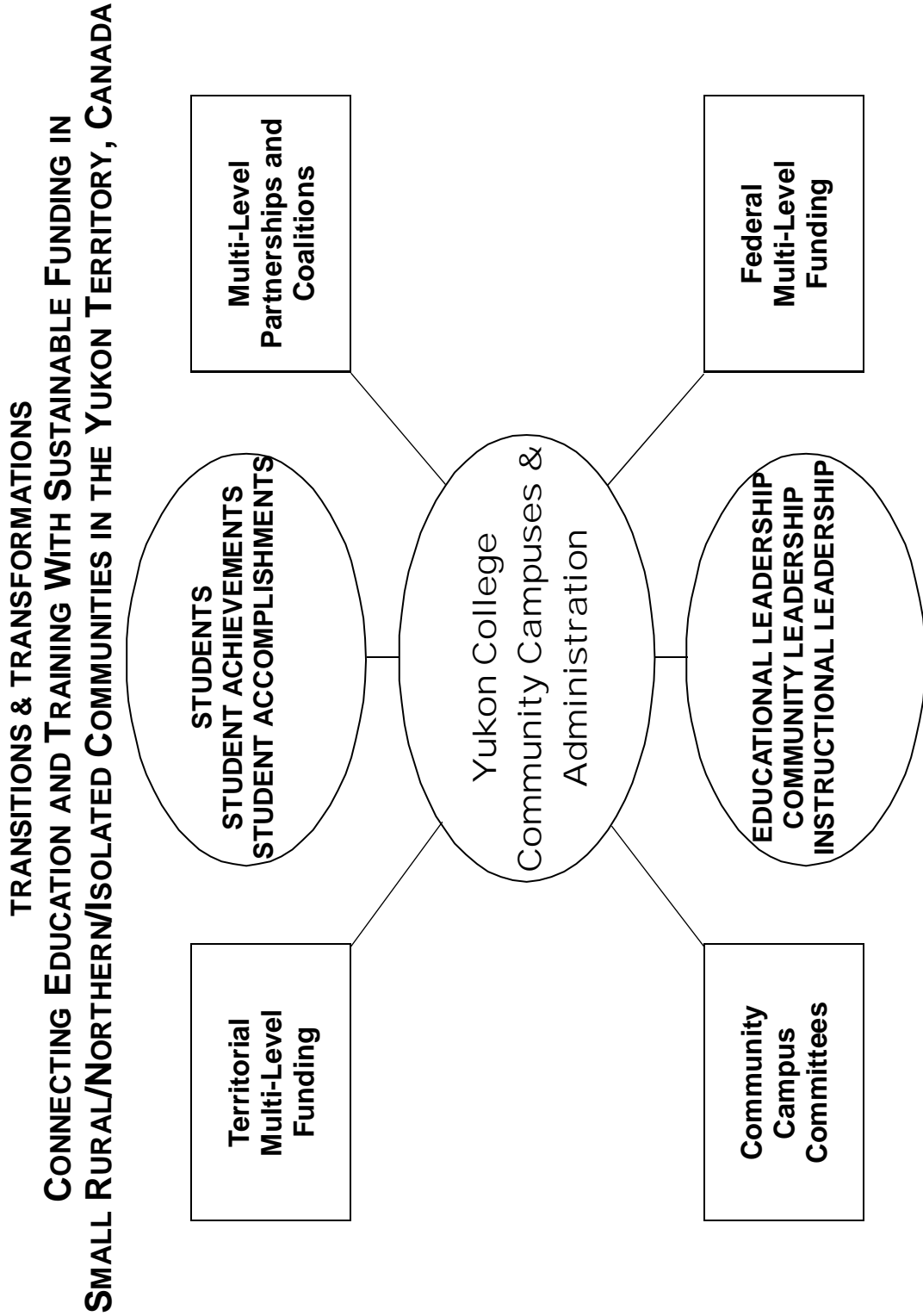
“Western science tends to emphasize compartmentalized knowledge (by disciplines) which is often decontextualized and taught in the detachment of a classroom or laboratory setting. Native people, on the other hand, have traditionally acquired their knowledge of the world around them through direct experience in the natural environment, whereby the particulars come to be understood in relation to the whole and the so-called laws are continually tested in the context of everyday survival.”<sup>15</sup>

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<sup>14</sup> Parnell, Dale, *The Neglected Majority*, The Community College Press Washington, 1989 page 137

<sup>15</sup> Kawagley, A. O., in his book *A Yupiaq Worldview: A Pathway to Ecology and Spirit*, 1995 page 87

Figure 13 Transitions and Transformations



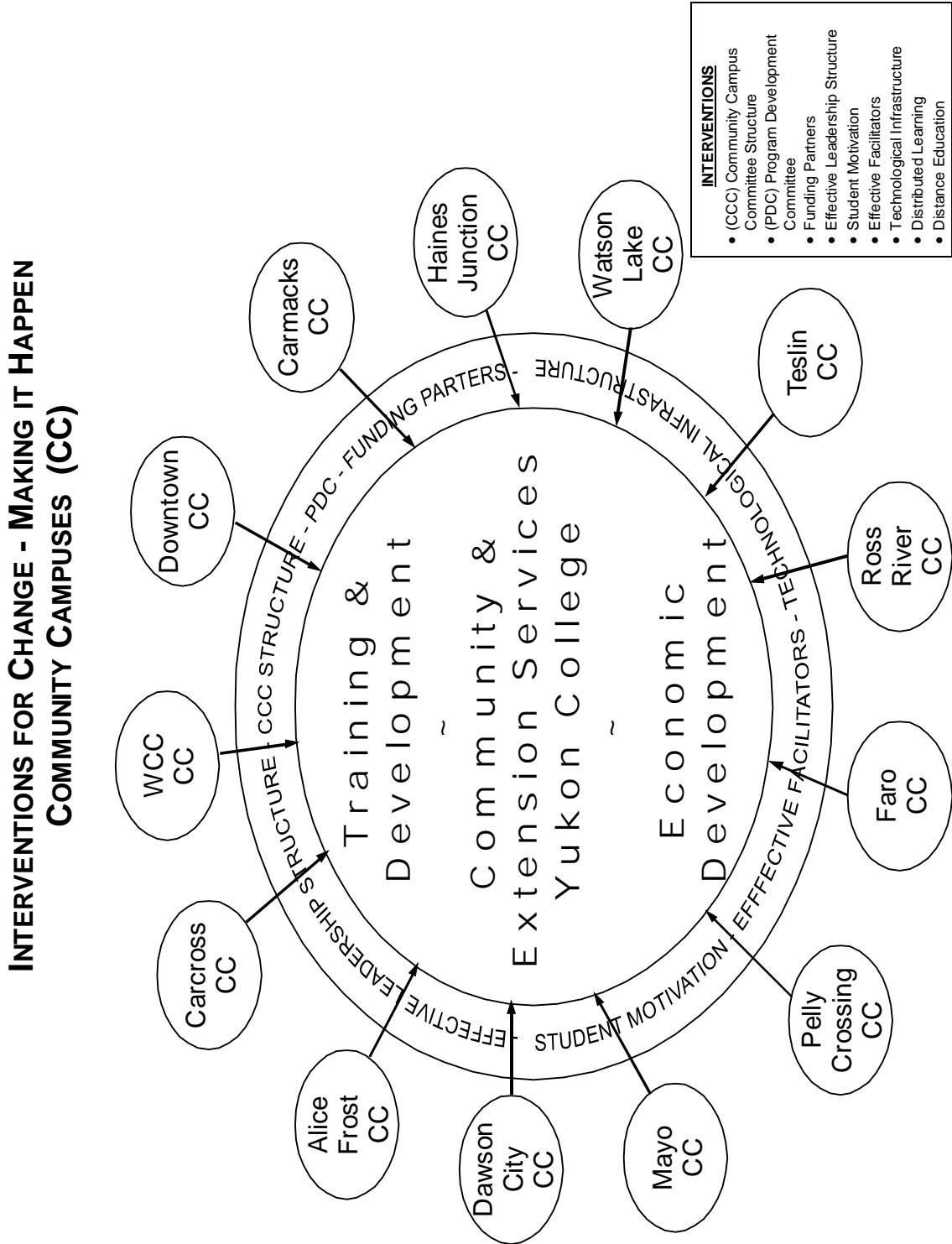
The paradigm of change continues in several components: planning, implementation, transformations, transitions, strategies, techniques and conceptualization. Our observation and experience has translated over time in principles and practices of changes and are explained as follows:

- Planning and Implementation: A particular community need is identified and organizations that have a vested interest are approached to establish a partnership to meet the community needs. The various organizations and stakeholders, at several levels, discuss program planning and implementation for training courses. Curricula and materials are identified and developed as required for the community involved in the programming. Funding, which is always a challenge, is obtained through cost sharing by partners in the program. Implementation is carried forward as determined and required by the community. These are generally overcome and successful delivery of training is carried out.
- Transformation and Transitions: By participating in the programs, students gain self-confidence, self-esteem, motivation; often obtaining their first job, or pursuing advanced training or education. For example, one student initially enrolled in the Youth Employment Program where he learned and practiced job and works skills with some technical skills in carpentry. He then participated in a leadership program which enabled him to demonstrate his learned and innate skills for carpentry and working with others; subsequently he was invited to join an apprenticeship program so that he could obtain his formal certification.
- Strategies and Techniques: A variety of instructional methodologies are applied for success. Needs assessments are attended to, with the objective of using the appropriate strategies and techniques to achieve the desired learning outcomes. This is the challenge for the instructors. The methods of teaching must be, and to a greater extent are, matched to the learning styles of the students. Further, there is a recognition that the needs of the student are paramount in the learning by the student.

- Conceptualization: The thinking that goes into the community education delivery process is enormous. The following is a typical reference list for the initial coalition on developing a program. These organizations and individuals would create the final partnerships, as required, to implement the program
  - Community Campus Committee
  - Community Campus Instructors/coordinators
  - Director of Community Campuses
  - Funding agencies
  - First Nation representation
  - Professional organizations
  - Local business owners
  - Community organizations such as Chambers of Commerce, Recreation Boards, Church Councils, etc.

All of the above would be working towards the same goal, which may have been brought about by one person's suggestion regarding an education and training need. See Figure14

Figure 14 Community Accessing Development



## CONCLUSION

The experience of the Yukon demonstrates that communities can be effective at working through change and creating dynamic systems. In recognizing the evolutionary process of development, the barriers to education and economic development can be overcome. The key to the success is creating a design that is appropriate for the community.

Adult education in the Yukon has undergone significant change in the brief history of the Yukon's development. Because of political leadership, community demand and organizational competencies, the Territory has created an adult educational system that supports and promotes social, political, and economic development. The system is, by its design and nature, responsive to the local learning and economic development needs. As the adult education system has grown and matured, the organizational process has become more and more like a network. The organizational framework has developed from a narrowly focused hierarchical method to what is now an operating network of communities.

By maintaining a focus on the Universal Design dimensions of learnability, modality and medium of independence, and interconnectedness of supporting group activities the networks can develop. Yukon College has overcome the barriers that limit the growth and development in the community.

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