
It is still necessary to have universities; here I refer mainly to colleges of science and engineering. However, it is essential to shorten the length of schooling, revolutionize education, put proletarian politics in command and take the road of the Shanghai Machine Tools Plant in training technicians from among the workers. Students should be selected from among workers and peasants with practical experience, and they should return to production after a few years' study.

— MAO TSETUNG

Strive to Build a Socialist University of Science and Engineering

by the Workers' and People's Liberation Army Men's
Mao Tsetung Thought Propaganda Team in Tsinghua University

THANKS to the solicitous concern of our great leader Chairman Mao and the Party Central Committee with Chairman Mao as the leader and Vice-Chairman Lin as the deputy leader, the proletarian revolution in education is vigorously surging forward in Tsinghua University. Over the past year and more, the working class has led the university's revolutionary teachers, students, staff members and workers in holding high the banner of unity and victory of the Ninth Party Congress, following Chairman Mao's brilliant thinking on the revolution in education and, with the "May 7" Directive as the key link, "taking the road of the Shanghai Machine Tools Plant in training technicians from among the workers" and striving to build a socialist university of science and engineering.

The Working Class Must Exercise Firm Leadership Over the Revolution in Education in The Course of Struggle

Chairman Mao teaches us: "To accomplish the proletarian revolution in education, it is essential to have working class leadership; the masses of workers must take part in this revolution and, in co-operation with Liberation Army fighters, form a revolutionary three-in-one combination with the activists among the students, teachers and workers in schools and colleges, who are determined to carry the proletarian revolution in education through to the end. The workers' prop-

aganda teams should stay permanently in the schools and colleges, take part in all the tasks of struggle-criticism-transformation there and will always lead these institutions." Working class leadership is the fundamental guarantee for completely smashing the bourgeois educational system and establishing the proletarian educational system. The proletarian revolution in education is a deep-going political revolution ensuring the dictatorship of the proletariat over the bourgeoisie in the spheres of culture and education. Since July 27, 1968 when the working class mounted the political stage of struggle-criticism-transformation in the superstructure, a fierce struggle has been going on between the proletariat and the bourgeoisie around the question of who will transform and triumph over whom. It is precisely in the struggle between the two classes, the two roads and the two lines that working class leadership has constantly been strengthened and consolidated.

Working class leadership means leadership by Mao Tsetung Thought. Under the leadership of its vanguard the Communist Party, the working class has entered the field of education in order to carry out Chairman Mao's great directive "The length of schooling should be shortened, education should be revolutionized, and the domination of our schools and colleges by bourgeois intellectuals should not be tolerated any longer," and occupy the positions of schools and colleges and transform them with Mao Tsetung Thought.

In order to occupy these positions and maintain firm leadership over the revolution in education, the working class must criticize and repudiate the bourgeoisie, vigorously grasp the class struggle in the ideological field and exercise leadership over the intellectuals politically and ideologically. Otherwise, it is impossible to consolidate working class leadership and there is even the danger of losing it again. In accordance with Chairman Mao's great teaching "**There is no construction without destruction,**" we have launched deep-going and sustained revolutionary mass criticism of the counter-revolutionary clique of the renegade, hidden traitor and scab Liu Shao-chi and his counter-revolutionary revisionist line, as well as criticism of the reactionary bourgeois Right and ultra "Left" trends of thought, criticism of the feudal, capitalist and revisionist systems of education and the revisionist ideas in various spheres of academic learning, and criticism of the slavish comprador philosophy and the doctrine of trailing behind at a snail's pace. The overthrown bourgeoisie will never be reconciled to its defeat; it will invariably take advantage of its influence in the ideological field and make use of the weak points in the world outlook of intellectuals to spread poison, in a vain attempt to seize back its lost "hereditary domains" and contend with the proletariat to win over the intellectuals. Some bourgeois elements openly clamour: "The working class is not capable of exercising leadership in the most advanced sciences." Others put on an ultra "Left" appearance and distort the Party's policy towards intellectuals by spreading such absurdities as "Working class leadership in everything means brushing the intellectuals aside" in a vain attempt to push the intellectuals to the side in opposition to the working class and effect a counter-seizure of power. By fully arousing the masses and relying on invincible Mao Tsetung Thought, we have resolutely exposed and criticized the handful of class enemies for their criminal attempt to sabotage and weaken working class leadership and thus smashed their plot for restoration.

The struggle waged by the proletariat against the bourgeoisie for leadership often and in numerous cases takes the form of a struggle against the bourgeois force of habit. As the revolution in education develops in depth, the bourgeois thinking of some intellectuals constantly manifests itself in new forms. Some of them declare: "You take charge politically while I take leadership in vocational work." Others think that they have done well enough in receiving re-education and so the working class is "handing over power" to them when they are asked to play their role in vocational work. They think that they are "experts" in transforming education and in vocational work, and so the working class should "give way" to them. Still others think that to bring the initiative of the original teaching staff into play is tantamount to restoring the old system. All these erroneous ideas, whether Right or "Left" in appearance but Right in essence, are obstinate expressions of the bourgeois world outlook and are

highly destructive. Unless they are thoroughly criticized, the old will find its way back and be consolidated in a newborn form, working class leadership will be taken away by others, and the revolution in education will be led on to the wrong path of reformism. Practice shows that it is far more difficult to smash the old force of habit than to smash sabotage by a handful of class enemies.

An ideological stronghold of reaction can only be destroyed with an ideological weapon of revolution. Only when the handful of class enemies and the old force of habit are thoroughly criticized and discredited and their poisonous influence eliminated, can it be said that they are really overthrown and working class leadership is fundamentally consolidated. Therefore, revolutionary mass criticism is a task of strategic importance in building a socialist university, a main subject in carrying out the revolution in education, and a powerful weapon of the proletariat in its protracted struggle against the bourgeoisie and for consolidating the dictatorship of the proletariat.

In order to keep a firm hold of the leadership in the revolution in education, the working class must fully mobilize the masses and carry out the mass line to the letter. It must resolutely implement Chairman Mao's policy of "**letting a hundred flowers blossom and a hundred schools of thought contend,**" and give full play to proletarian democracy so as to create an atmosphere in which people dare to criticize and argue. It must rely on the activists who are determined to carry the proletarian revolution in education through to the end, boldly trust and use the great majority of the intellectuals and unite with all the forces that can be united. Only in this way can we ensure all-round dictatorship by the proletariat over the bourgeoisie. Failing to do this, the working class will isolate itself and working class leadership will exist only in name and have no basis. Like all other revolutionary work, the revolution in education "**will turn out to be a mere formality and will fail**" unless the masses "**are conscious and willing**" (*The United Front in Cultural Work*). Working class leadership in everything does not mean monopolizing everything or overwhelming everything by crude methods, placing the intellectuals in a "one-push-one-step-forward" passive position. Relying on the broad masses of revolutionary intellectuals and bringing their subjective initiative into play will strengthen working class leadership instead of weakening it.

In order to keep a firm hold of the leadership in the revolution in education, the working class "**should always raise its political consciousness in the course of struggle,**" energetically study and apply Mao Tsetung Thought in a living way and take the lead in ideological revolutionization. This means that we should conscientiously meet the following requirements: We must resolutely carry out Chairman Mao's instructions and his proletarian policies, whether we understand them

or for the time being do not yet understand them; we **"should be modest and prudent, guard against arrogance and rashness"** and, as members of the propaganda team, we should learn from those who are receiving re-education and be the modest pupils of the masses so as to learn what we do not know and master the laws governing the struggle between the two classes and the two lines in the realms of culture and education; we should work hard, take part in physical labour regularly and keep in touch with the masses so that we shall always be able to resist corruption; we should go deep into reality, make a good job of investigation and study, grasp typical cases well and, as regards the work as a whole, first grasp one-third of it well and sum up the experience conscientiously; we should have the spirit of self-criticism, and correct whatever mistakes we might make, because this is an expression of our loyalty to Chairman Mao and of continuing the revolution. Only by doing so can the working class shoulder the great historic mission of assuming leadership in the struggle-criticism-transformation in the superstructure and ensure that the proletarian revolution in education will advance victoriously along the brilliant road of Chairman Mao's "May 7" Directive.

Persist in Remoulding the Original Teaching Staff While Using Them, Form a "Three-in-One" Contingent of Teachers

"In the problem of transforming education it is the teachers who are the main problem." The formation of a contingent of proletarian teachers by combining the three forces—the workers, peasants and soldiers; the revolutionary technicians; and members of the original teaching staff—is vital to putting a complete end to the domination of our schools by bourgeois intellectuals and building socialist universities.

The worker, peasant and soldier teachers constitute the most vigorous revolutionary force in the contingent of teachers. They are daring to blaze new trails and do away with fetishes, and they have the ability to criticize. At the same time, they bring into the university the advanced experiences of social production and the working people's inventions and innovations, thereby helping to strengthen the link between the university and factories. Students say their lectures are easy to understand and can be put to use right away. In the past year, we have selected a number of full-time or part-time teachers from among workers, peasants and soldiers in the forefront of the three great revolutionary movements of class struggle, the struggle for production and scientific experiment, and let them mature in the course of struggle and improve themselves through practice. Their participation in teaching has further strengthened working class leadership in the university, effectively ensured the correct political orientation of teaching, and promoted the remoulding of intellectuals and the transformation of education. The workers, peasants and soldiers have mounted the

university platform. This is a new thing which has emerged in the course of the fierce struggle between the two classes and the two lines on the educational front. A few bourgeois intellectuals adopted the attitude of "wait and see" or "expecting something ridiculous"; some tried to palm off the feudal, capitalist and revisionist stuff on the worker, peasant and soldier teachers, saying: "I load the gun and you do the shooting." We waged a resolute struggle against this. In fact, the workers, peasants and soldiers know proletarian education best. The fact that they were barred from the old colleges in the past was a reversal of history. Their mounting the platform of socialist colleges today is historically inevitable.

The original teaching staff is an indispensable component of the "three-in-one" contingent of teachers. Chairman Mao has pointed out: **"China needs the services of as many intellectuals as possible for the colossal task of socialist construction."** (*On the Correct Handling of Contradictions Among the People.*) Chairman Mao has also pointed out that the vast numbers of intellectuals in our country **"want to . . . remould themselves, and they are quite capable of remoulding themselves."** (*Speech at the Chinese Communist Party's National Conference on Propaganda Work.*) This also holds good for the teachers' contingent. The bad elements and counter-revolutionaries who have wormed their way into the teachers' ranks and those who would keep their reactionary thinking ossified are very small in number. Therefore, while noting that the remoulding of world outlook is a long-term and arduous task for the masses of teachers, we must also recognize that they cherish a deep love for the Party and Chairman Mao. Tempered in the Great Proletarian Cultural Revolution and, particularly, re-educated under working class leadership by the workers, peasants and soldiers since July 27, 1968, the vast number of teachers have heightened their consciousness of class struggle and the struggle between the two lines. We must take their revolutionary enthusiasm into full account. We should also apply the principle of **"One divides into two"** to their professional knowledge. We should see that while the old system must be destroyed, some of their professional knowledge of the natural sciences and some of the experience they accumulated in the past still have a role to play once such knowledge and experience are placed under the leadership of the correct line and are integrated with production. China's Great Proletarian Cultural Revolution has opened the broadest horizon for bringing into full play the talent of all the intellectuals who are willing to serve the workers, peasants and soldiers. We should have faith in the tremendous power of Mao Tsetung Thought. So long as we pay close attention to their political re-education and enable them to re-orient their professional knowledge, the majority of the original teaching staff are able to continue teaching and make contributions to the proletarian education and socialist culture and science. As for the very small number of teachers who

are really impossible, we should also give them a way out, educate them, allocate appropriate work to them and continue to test them.

In order to help the teachers meet the needs of the socialist university as quickly as possible, we should persist in uniting with, educating and remoulding them while using them. Those who allege that "we should not use them unless they are completely remoulded" in fact fail to see the revolutionary enthusiasm of the intellectuals and the protracted nature of their remoulding. In his brilliant *Talks at the Yen-an Forum on Literature and Art*, Chairman Mao teaches: "This question of 'for whom?' is fundamental; it is a question of principle." Following this teaching, we have paid special attention to solving the question of "whom to serve and how to serve?" among the teachers. In view of their weak points of divorcing from proletarian politics, from the worker and peasant masses and from practice over a long time, we have organized large numbers of teachers to temper themselves in the three great revolutionary movements, participate in the setting up of an experimental farm, go and work in different factories according to their specialities, take part in physical labour in turn, engage in the transformation of education, and remould their ideology under relatively difficult conditions. Intellectuals often reveal their world outlook in their attitude towards professional knowledge. We must thoroughly transform each and every professional field. Participation in the struggle of the three great revolutionary movements inevitably clashes with the old ideas which have taken root in the innermost being of some of the teachers, such as "knowledge is private property," "theory is above everything else," "the slavish comprador ideology of trailing behind at a snail's pace" and "seeking personal fame and fortune." This helps to accelerate the remoulding of their ideology.

The thoroughgoing change in the world outlook of intellectuals cannot be accomplished spontaneously. The change in environment only provides conditions for their remoulding. Proceeding from the principle of being firm, strict and meticulous, we should re-educate them according to the ideological problems current in their minds, use the advanced typical cases in their own ranks to educate them and encourage them to revolutionize their thinking of their own accord. As regards their ideological vacillation and reversals, we should guide them forward, do patient and earnest ideological-political work and firmly grasp the remoulding of their world outlook. We should make appropriate and reasoned criticism of their wrong ideas so as to correct them.

"A correct policy towards the intellectuals is an important prerequisite for victory in the revolution." (*Recruit Large Numbers of Intellectuals*.) In order to effectively bring into play the revolutionary initiative of the vast number of teachers under working class

leadership, encourage them to display their revolutionary spirit of daring to think, speak, act and break through in the interest of the proletarian revolution in education, and be bold in carrying on the educational revolution, we have paid attention to correctly handling the following questions in our work:

(1) Draw a distinction between those who take an active part in the educational revolution but are still fettered ideologically by old conventions and still show that they are somewhat divorced from proletarian politics, from the worker and peasant masses and from practice on the one hand and those who stubbornly cling to the old paths on the other.

(2) Draw a distinction between those who earnestly want to integrate with the workers, peasants and soldiers but hold differing views from worker comrades on certain specific problems in the transformation of education on the one hand and those who refuse to be re-educated and resist working class leadership on the other.

(3) Draw a distinction between those who, with problems in the educational revolution or in technical innovations, actively delve into professional work and consult relevant Chinese and foreign books and reference material on the one hand and those who are divorced from proletarian politics, put theory above everything else, worship things foreign and attempt to restore the old on the other.

(4) Draw a distinction between those who, in order to change the backward state of things and fill certain blanks, analytically and discriminately learn what we do not know or do not have from other parts of the country or abroad on the one hand and those who cling to the slavish comprador ideology of trailing behind at a snail's pace on the other.

We need not worry even if there are a small number of people who refuse to be re-educated and cling to the old paths. Class struggle is protracted and such people invariably exist. All we need is to carry on further deep-going criticism of their old ideas in the course of the educational revolution, and firmly grasp the task of educating and remoulding them.

(5) As regards those whose political questions in the past have been examined and verified, we should enlist them in the educational revolution on the merit of each case and their present-day political attitude, and educate and remould them while using them.

(6) As regards those whose cases are handled in the manner of handling contradictions among the people, we should strictly adhere to the methods for resolving such contradictions and treat them correctly. As for those bourgeois reactionary academic authorities who have shown some changes after being criticized by the masses, we should keep on helping them to join the revolutionary masses in criticizing the revisionist educational line and the feudal, capitalist and revisionist

academic thinking and urge them to revolutionize their thinking of their own accord. At the same time, attention should be paid to bringing into play their "specific skills" in serving socialist construction.

(7) In the transformation of education, it is "necessary to be careful" about the right and wrong of certain specific questions in natural sciences, "to encourage free discussion and avoid hasty conclusions" (*On the Correct Handling of Contradictions Among the People*), and to abide by the objective laws. These questions should be settled through practice.

The mental outlook of the vast number of teachers has changed still further in the course of their taking part in the educational revolution. Re-education by the workers, peasants and soldiers has become the conscientious demand of many people. They warm-heartedly serve the workers, peasants and soldiers, and some even have made inventions and innovations. The workers, peasants and soldiers share the view: "In the past these intellectuals did not think in the same way as we did and we could not talk the same language. But now they are close to us in heart and we can chat like bosom friends." The teachers profoundly feel that re-education embodies Chairman Mao's greatest care for them. They are resolved to remain pupils to the workers, peasants and soldiers all their lives and always be loyal to the Party's educational cause.

Old teachers who lived through the old society have also made big progress. Many of them are playing an active role in the educational revolution. A certain professor thought that there was no need to make any alteration in a textbook he had compiled, which had been widely used in the country, saying that the book "can be used right away once it is taken from the shelf and given a dusting." We let him join an educational revolution detachment. Taking into account the problems that had cropped up while he was teaching worker students, we promptly guided him to join the masses in criticizing the feudal, capitalist and revisionist systems of education, and carried out careful ideological and political work for his benefit. All this has made him gradually come to understand: "My old textbook which values theory above everything else and makes simple things complicated does not meet the needs of the workers, peasants and soldiers. It won't do just to give it a dusting or even a rehashing. It must be thoroughly revised." Later, together with some other revolutionary teachers and students, he integrated with the workers and, in the course of solving a major technical problem for a factory, he learnt from the workers, raised his own political consciousness and made his contribution. He was praised by the workers.

The revolutionary intellectuals, who are armed with Mao Tsetung Thought and who integrate with the workers, peasants and soldiers, are an important revolutionary force. A "three-in-one" contingent of teachers formed according to the image of the proletariat is now growing up.

Establish a New, "Three-in-One" System Combining Teaching, Scientific Research and Production by Running the University in an Open-Door Way, Linking It With Factories, Having It Run Its Own Factories and Making Factories Guide Its Specialities

The establishment of a new, proletarian educational system is not merely a change in organization but a revolution aimed at implementing in an all-round way the principle "Education must serve proletarian politics and be combined with productive labour."

Whether the university closely links itself with social practice and is run in an open-door way is a question of principle, a question of what banner it upholds, what road it follows and what orientation it adheres to. The counter-revolutionary revisionist Chiang Nan-hsiang openly opposed the students' taking part in the class struggle and struggle for production in society, clamouring that "Tsinghua University is a cradle for engineers" and "fighters in the three great revolutionary movements can be trained in laboratories." This prevented many teachers and students from seeing how the workers work and how the peasants farm and also did much harm to their health. As a result, the university was sliding farther and farther down the revisionist road and the more the students studied the more stupid they became. The propaganda team has led the teachers and students in penetratingly criticizing this revisionist line for running schools and colleges and led them to resolutely take the road indicated by Chairman Mao's "May 7" Directive. They have run an experimental farm and gone to factories, construction sites, the countryside and army units to participate in class struggle, the struggle for production and scientific experiment, thus making extensive contacts with social practice. They have engaged in educational revolution in various ways, such as participating in industrial and agricultural productive labour, running full-time, part-time or spare-time college courses for workers and short-term training courses and undertaking technical innovations, scientific research and social investigation. The proletarian revolution in education is a deep-going socialist revolution of a mass character. It cannot be carried out successfully without the participation of the masses and the support of the leadership of various departments at all levels. Running the university in an open-door way, linking it with factories and running it in the midst of society as a whole, and making the popularization and the raising of standards of culture give a strong impetus to the development of industrial and agricultural production — all this fundamentally puts an end to the state of divorce from proletarian politics, from the worker and peasant masses and from practice, which made the old university cut off from the outside world and very uninformed. It brings the university in close touch with society and enables intellectuals to make wider contacts with the worker, peasant and soldier masses, take part personally in social prac-

tics and receive re-education, thus speeding up the remoulding of their own world outlook. The teachers and students say with deep feeling: "We read books behind closed doors in the past and the engineers' cradle rocked us dizzy and made us lose our bearings. Now that the university is run in an open-door way, the furnace of the three great revolutionary movements have made us see our road clearly and steeled our loyalty to the revolution." New techniques and inventions in social production have kept enriching and renewing the contents of teaching and given university education great vitality while teaching and the fruits of scientific research in the university directly serve socialist construction and promote the progress of social production. Linking the university with factories has opened up broad, new vistas for the educational revolution and we must persist in doing so.

"Schools and colleges should run factories." This is a great and wise policy of Chairman Mao's. It will not do if the students only have book knowledge and do not take part in labour. **"Besides meeting the needs of teaching and scientific research, all laboratories and affiliated workshops of engineering colleges which can undertake production tasks should do so to the best of their capability."** This is the guiding thinking for schools and colleges to run factories. Throughout the course of running factories there have been fierce struggles between the two lines and two ideologies. We criticized the bourgeois profligate style of seeking ostentation and things foreign and relying solely on the state and criticized the wrong idea of divorcing teaching from production and believing in "production is everything." We resolutely carried out Chairman Mao's principles of "self-reliance," "hard struggle" and **doing away with all fetishes and superstitions and emancipate the mind**, and persisted in giving prominence to proletarian politics, implementing the principle of the **"main task is to study"** and putting the training of people first. In conformity with the needs of socialist construction and teaching and with a view to mutual promotion among the development of the specialities, we made full use of available equipment and other facilities, used simple and indigenous methods and relied on ourselves to set up a number of small and medium-sized factories which can promote various specialities, including a precision machine tool plant, an experimental multi-purpose electronics factory and a motor vehicle plant which accept some state assignments of scientific research and production. The experimental multi-purpose electronics factory, for instance, was built on the basis of a laboratory by making use of the old equipment and making some new pieces. It has stimulated automatic control, radio technology, electronic computer and other specialities and turns out a wide range of electronic products. In working out its production plans, a college-run factory should take into consideration the needs of teaching and see to it that there is enough leeway. The products it chooses to manufacture should be typical, varied and of advanced

standards. They should be products which industry and national defence urgently need and should at the same time meet the needs of teaching of specialities; there should be a certain degree of serial production, and in the meantime energetic efforts should be made to conduct research and trial-production and constantly introduce new techniques.

In the light of the development of industrial and agricultural production and science and technology as well as the needs for catching up with and surpassing advanced world levels, we set out to transform the old university system by running factories and establishing ties with outside factories. We broke the barriers of faculties set in the past, merging some faculties and adding new ones. On the basis of their relations with scientific research and production, the specialities are placed under the related systems of university-run factories, scientific research institutions or university-factory links, so that the specialities are guided by factories. At the same time, we set out to build up a new-type contingent in basic theory. The grass-roots units in the new system are specialized teams composed of workers, students and teachers. University-run factories exercise unified leadership and make overall planning for teaching, scientific research and production. In this way what was purely a teaching unit divorced from proletarian politics, from the masses and from practice and dominated by bourgeois intellectuals, has become a base for teaching and learning where the workers, peasants and soldiers are the main force and where teaching, scientific research and production are combined. For example, the teachers and students of the speciality of pressure metal work took part in labour in the forging and pressing workshop of the motor vehicle plant. They combined their study of "forging technology" and other courses with the processing of various forged pieces for motor vehicles, mastering production skills as well as scientific theory. The advantages of such practice are: the workers take a direct part in every aspect of the teaching, thereby strengthening working-class leadership in the university; the teachers not only give lectures but also participate in production, thereby facilitating the ideological remoulding of intellectuals; the students do their studies while taking part in production, thereby ensuring that education is combined with productive labour.

Scientific experiment is an important task that a university of science and engineering must shoulder. While running factories, we have accelerated the reform and construction of the laboratories. Closely linking the university-run factories and laboratories with society, we have turned the university into an important base for training the students' ability in scientific experiment, energetically conducting scientific researches, scaling pinnacles of technology, creating new technological processes and manufacturing new products, probing new theories and catching up with and surpassing advanced world standards.

In line with the peculiarities of different specialities, most of our specialities use our university-run factories as the main base; some others take the university's link with outside factories as their main base; and still others mainly use the laboratories to conduct teaching along with scientific research. Nevertheless, university-run factories and laboratories cannot take the place of the link-up between the university and outside factories. All specialities must closely combine these three forms and, in particular, they must face the society and link themselves with factories outside.

Over the past year and more, through running the university in an open-door way, linking it with factories, having it run its own factories and making factories guide its specialities, we have trained a contingent of technicians of the working class, completed many items of technical innovations and scientific research and trial-manufactured and made certain products urgently needed in China's industry and national defence.

To Train Worker, Peasant and Soldier Students, It Is Imperative to Persist in Taking Class Struggle as The Main Course and Adhere to the Unity of Theory and Practice

The question of training and bringing up new proletarian intellectuals is a question of paramount importance and long-term interest to the consolidation of the dictatorship of the proletariat and the fundamental task of a socialist university. In line with Chairman Mao's teaching "**Students should be selected from among workers and peasants with practical experience, and they should return to production after a few years' study,**" we have, since March last year, enrolled nearly 600 worker, peasant and soldier students with practical experience, run various experimental classes of different specialities and begun work in selecting and training such students. According to our plan, the university will have 2,500 new students this year. At present, more than 800 have already been enrolled.

As soon as they entered school, the worker, peasant and soldier students put forward a resounding slogan: "We study in the university, administer it and transform it with Mao Tsetung Thought." Actively plunging into the battle of revolution in education, they, together with the teachers, staff members and workers of the university, established bases of the "three-in-one" combination of teaching, scientific research and production. At the same time, together with the teachers, they worked out teaching plans and edited new teaching material. All this has greatly promoted the revolution in education. How to train such a brand-new revolutionary force, to train every student into a **worker with both socialist consciousness and culture** (*On the Correct Handling of Contradictions Among the People*) is a new subject for us.

Whether or not we persist in taking political education as the key link in the whole education for

worker, peasant and soldier students is a question of whether or not we implement the proletarian educational line. When the experimental classes started, some people thought: "Since worker, peasant and soldier students have high political consciousness, it is no longer necessary for the school to transform their ideology." Some teachers thought that they themselves "are persons that need re-education and therefore are not qualified to transform the students' ideology." Thus a few individuals considered that their task was "solely to teach mathematics, physics and chemistry, and not to care about ideological revolutionization." On the other hand, some students had the idea that they were "born red," so they had the mistaken idea that they "enter the school for vocational training and will make up for the loss in politics after returning to the original places." We organized them to study in a deep-going way Chairman Mao's great teachings **Politics is the commander, the soul in everything** and "**In all its work the school should aim at transforming the student's ideology,**" and, combining the study with the education on the struggles between the two classes and the two lines on the cultural and educational fronts, we vigorously grasped the remoulding of their world outlook. All this made the comrades come to understand: Class struggle in the political and ideological fields will never stop and class struggle in society will inevitably be reflected in the ranks of workers, peasants and soldiers. The surviving poisonous influence of "going to school in order to climb up," "theory above everything," purely vocational viewpoint and other bourgeois ideology always tries to contaminate the worker, peasant and soldier students, the young students in particular. If we lose sight of this and relax political and ideological education, there is a danger that the worker, peasant and soldier students too may be corrupted by the bourgeoisie. In all its work and lessons, if a school is not educating students with proletarian ideology, it is poisoning them with bourgeois ideology. There has never been the case in which "one is imparting book knowledge only and not educating the persons." By teaching only vocational knowledge and ignoring politics, a teacher will inevitably lead students to the bourgeois road. The original teachers must not only make efforts to remould their own ideology and change their own stand and feelings, but must at the same time do their utmost to put Mao Tsetung Thought in command of their teaching and boldly undertake the task of propagating Mao Tsetung Thought. They said: "Our participation in the work of transforming the students' ideology is a responsibility entrusted to us by the proletarian revolutionary cause, and it is also a higher and more strict demand we set ourselves in being re-educated by workers, peasants and soldiers."

Persisting in taking class struggle as the main course, and enjoining the students to measure up to the five requirements for successors to the revolutionary cause of the proletariat put forward by Chairman

Mao, we have instilled Mao Tsetung Thought into them and taken the constant raising of the students' consciousness of continuing the revolution under the dictatorship of the proletariat as the primary task of the school. We have resolutely carried out Chairman Mao's instruction "The same holds good for the students too. While their main task is to study, they should also learn other things, that is to say, they should not only learn book knowledge, they should also learn industrial production, agricultural production and military affairs. They also should criticize and repudiate the bourgeoisie." Thus we have persisted in learning from the People's Liberation Army, constantly participated in industrial and agricultural productive labour, and continuously fought self, criticized revisionism and criticized the bourgeoisie with class struggle as the key link. In this way, although the worker, peasant and soldier students spent most of their time in participating in the activities of vocational teaching and studying, they gave prominence to proletarian politics all the time, steadily raised their consciousness of continuing the revolution and were able to "develop morally, intellectually and physically" (*On the Correct Handling of Contradictions Among the People*). Although the environments have changed, their fine qualities as ordinary labouring people have not changed; their level of theoretical knowledge has been raised while their style of integrating theory with practice has not changed; their working ability has been improved while their modest and prudent attitude has not changed.

In order to train workers serving the socialist cause who are armed with both scientific theory and practical experience, the colleges of science and engineering must in the vocational field enable the worker, peasant and soldier students to solve current problems arising in practical production and to undertake the tasks of designing and scientific research so as to meet the needs of our country's scientific and technical development. To achieve this aim, it is imperative to oppose the tendencies towards dogmatism and empiricism, persist in integrating theory with practice and train the students' ability to analyse and solve problems. While in school, the worker, peasant and soldier students must give emphasis to the study of theory. This is because "perception only solves the problem of phenomena; theory alone can solve the problem of essence" (*On Practice*). Negation of theoretical study is wrong. "But Marxism emphasizes the importance of theory precisely and only because it can guide action." (*On Practice*.) All theories originate from practice and in turn serve practice. Therefore, teaching in school can in no way be separated from practice. The practical experience of worker, peasant and soldier students cannot entirely take the place of the practical basis of teaching. It must be constantly enriched and developed in the course of teaching. In some experimental classes, we corrected the mistaken idea that "the worker, peasant and soldier students have practical experience

so they can study theory alone." We see to it that the teaching contents and the process of teaching are at all times closely combined with practice, applying theory in the course of practice, that the effect of teaching is being directly tested by practice, and that the students not only can understand the world but are able to "apply the knowledge of these laws [the laws of the objective world] actively to change the world" (*On Practice*). For example, in a short-term training class on a special item, the students studied courses of "electronic technique" and "telecommunications technique" in combination with the research and manufacture of a certain advanced telecommunications machine. In barely six months, the students who had had only junior middle school education learnt the rudiments of basic theory and, together with the original teachers and students, manufactured a telecommunications equipment of advanced international level by applying the knowledge they have grasped. This throws into the shade those students in the past who "directly enter the universities after leaving the middle schools." Practice proves that in carrying out the proletarian teaching policy, it is only by opposing the "Left" and Right tendencies that the unity of theory and practice can be really achieved.

Students to be enrolled by colleges of science and engineering should chiefly be workers, peasants (attention should be paid to enrolling those educated young people who have settled in the countryside or who have returned to their home villages to take part in farm production), the Liberation Army men and young cadres — activists who have come forward in the course of the three great revolutionary movements of class struggle, the struggle for production and scientific experiment, who in general have three years or more of practical experience, are about 20 years old and whose educational level corresponds to that of junior or senior middle school training. Veteran workers and poor and lower-middle peasants who have abundant practical experience will be enrolled without qualifications on age and educational level. Shouldering the tasks of training engineers and technicians and scientific researchers from among the workers and doing some popularization work, the colleges of science and engineering, apart from running 2 or 3 year-system ordinary classes and special courses of around one year within or outside the colleges, must also run scientific research classes, spare-time university classes and short-term training classes on special subjects within or outside the colleges in various forms. In this way, higher education is emancipated from the original universities.

Smash Slavish Comprador Philosophy and Doctrine Of Trailing Behind at a Snail's Pace, Compile New Proletarian Teaching Material

The transformation of teaching material is a serious political struggle. It is a question of vital importance to the bringing up of a generation of new people. The slavish comprador philosophy and the doctrine of trail-

ing behind at a snail's pace constitute the very core of the old system of the teaching material for colleges of science and engineering. They pervade every line of the teaching material. Till this day, they are still the yoke shackling the minds of a small number of intellectuals. Thus, the destruction of the slavish comprador philosophy and the doctrine of trailing behind at a snail's pace is the key link in thoroughly transforming the teaching material.

"A given culture is the ideological reflection of the politics and economics of a given society." (*On New Democracy*.) Though they deal with natural sciences, the textbooks in science and engineering in the imperialist and social-imperialist countries are stamped with the brand of exploiting classes, because they are summings-up of the development of science and technology made according to the bourgeois world outlook to meet their needs in politics, economy and military affairs. Liu Shao-chi and company frantically advocated the slavish comprador philosophy and the doctrine of trailing behind at a snail's pace and introduced this stuff intact into China. In this way, they allowed the foreign bourgeoisie to continue their dictatorship over the Chinese people through the old textbooks. Take a series of old textbooks on electronics for example. The much advertised "compact" system for subjects in this branch of learning is nothing but an epitome of the development of electronics technology in the capitalist society. However, the textbooks claim that this system is an eternal and absolute truth and if one is to develop the electronics industry and master electronics technology one can only trail along this old road at a snail's pace. This fully reveals the enslaving character and backwardness of the old teaching material. The old teaching material reverses history, plagiarizes inventions and creations by the labouring people and advertises "experts above everybody else" to serve the interests of the bourgeoisie in monopolizing science and technology; it advertises "theory above everything" and commercializes education by turning simple matters into mysteries and forcing up prices to serve the interests of the bourgeois intellectuals in ruling schools; it advertises that "material and technical conditions decide everything," denies that first place must be given to human factor and stifles the infinite creativeness of the masses. Such old teaching material had seriously poisoned many intellectuals and young students and was in sharp contradiction with China's socialist politics and economy. It must be thoroughly transformed. Patchwork changes in a reformist way absolutely won't do.

The transformation of the teaching material is a deep-going ideological revolution. It is imperative to attach great importance to changing the stand and feelings of the teachers so as to help them move their feet over to the side of the proletariat and solve the question of for whom to write and how to write textbooks. The propaganda team led the teachers and students in going to the three great revolutionary movements of class struggle, the struggle for production

and scientific experiment, organized teaching material compiling groups composed of workers, poor and lower-middle peasants, Red Guards and teachers, launched revolutionary mass criticism and took the compiling of teaching material as part of the living study and application of Mao Tsetung Thought and of deep-going re-education of the intellectuals. People came to realize that it is a manifestation of slavish ideology to preserve intact the old system of the teaching material for science and engineering. One who divorces himself from the labouring people is bound to worship and be servile to things foreign; one who refuses to remould his idealist and metaphysical world outlook is bound to trail behind foreigners at a snail's pace. Chairman Mao long ago pointed out: **"In its spiritual aspect, this culture of the Chinese people already stands higher than any in the capitalist world."** (*Bankruptcy of Idealist Conception of History*.) In science and technology, China has also performed many wonders, leaving the Western bourgeoisie hopelessly behind. By consciously realizing and bringing into full play these superiorities we will be able to swiftly and successfully break a new ground in transforming the teaching material.

We deeply recognize that invincible Mao Tsetung Thought is our most fundamental ideological weapon in compiling new teaching material. The needs of the workers, peasants and soldiers are our point of departure in the work and the practice in the three great revolutionary movements is the source of our new teaching material.

"The teaching material should be thoroughly transformed, in some cases beginning with simplifying complicated material." This is a complicated and difficult task. It requires us to have both revolutionary enthusiasm and scientific approach, strive to put politics in command of professional work, scientifically analyse and penetratingly expound the laws of natural sciences with dialectical materialist viewpoint and adhere to the principles of integrating theory with practice and of getting teaching material condensed and concentrated, thus making it revolutionary, practical and advanced.

As for the present old teaching material and the scientific and technical achievements of foreign countries, we have kept to the principle of critically taking-over and to the policies of **"making the past serve the present and foreign things serve China"** and **"weeding through the old to bring forth the new."** In criticizing the system of the old teaching material as a whole, we laid stress on which line it was guided by, which class it served and which world outlook ran through it, instead of simply negating the specific content of natural sciences. As for the useful part, we did not just take it over and apply it, but checked it with a critical eye and took over what was scientific, discarding the dross and selecting the essential, eliminating the false and retaining the true. We divided "higher mathematics" which bourgeois experts lauded as being "tested and flawless"

into the essential and the dross, criticizing its idealistic and metaphysical "axiomatized" system while assimilating those useful theorems and formulae. For instance, proceeding from productive activities and taking as clue the struggle, development and transformation of the differential and integral, the two aspects of a contradiction, we created a new system and compiled new teaching material on "calculus." In the past, the concepts of differential and integral calculus were derived from piles of axioms and theorems and were very mysterious and unfathomable. Now the concepts are illustrated by familiar instances in production. For instance, when a bench worker processes a metal piece into a round shape with a file, every single movement forms a short straight line and finally the lines combined result in curves. This process of turning a whole into parts and parts into a whole vividly presents the concepts of differential and integral calculus. Worker students commented after studying: "After all, there's nothing mysterious about calculus. A mere file pierces the myth. Higher mathematics comes back into the hands of us labouring people."

In transforming the teaching material, we must also proceed from China's realities, warm-heartedly and conscientiously sum up the inventions and creations by the workers, peasants and soldiers, put forward new topics and make new generalizations. Textbooks on farmland water conservancy, Chinese or foreign, used to describe mountain torrents as being utterly harmful and without any benefit. The poor and lower-middle peasants in the Changchiakou area, bringing into full play the superiority of the people's communes, fought against nature, approached mountain torrents in the principle of one dividing into two and created valuable experience of leading silt-laden mountain torrents to enrich farmland, thus turning harm into benefit. The revolutionary teachers and students of an educational revolution detachment who took part in the fight compiled a new textbook "Leading Silt-Laden Mountain Torrents to Improve Farmland" together with the local poor and lower-middle peasants. The peasants said: "From this book we have learnt the ways to conquer floods. What is more, we have learnt Chairman Mao's revolutionary dialectics. It boosts the morale of the labouring people and deflates the arrogance of the bourgeoisie."

The transformation of the teaching material is a long-term task and cannot be accomplished once and for all. We should revise the teaching material in the course of teaching — constantly summing up, strengthening it, raising the level and renewing it — so that it can keep pace with and actively promote the rapid development of the cause of socialism.

Practise New Teaching Methods in Combination With The Tasks of Production and Scientific Research And by Keeping to the Mass Line

Chairman Mao teaches us: "In the Great Proletarian Cultural Revolution a most important task is to transform the old educational system and the old prin-

ciples and methods of teaching." Teaching methods are definitely not only a question of specific methods, but, what is more important, are a question of principle, a question of organizing teaching according to which class' theory of knowledge and methodology. The bourgeois teaching methods centre on books and teachers and divorce theory from practice. "The teacher crams the students with his lecture throughout the class while the students follow him mechanically." These methods completely violate the law of knowing the truth and they can only bring up bookworms who divorce themselves from proletarian politics, from the masses and from production. When we began to carry out transformation in education at selected spots, because the old teaching methods had not been completely done away with, some teachers "never parted with their books and mouthed formulae and whole sets of theories which had nothing to do with practice." Although they prepared lessons assiduously, gave lectures enthusiastically and coached the students patiently, the worker students were still not satisfied. Practice made us realize that without thoroughly transforming the old teaching methods, it would remain an empty talk for a university to accomplish the task of training intellectuals of the proletariat.

In line with Chairman Mao's teachings "Uniting theory and practice," "The standpoint of practice is the primary and basic standpoint in the dialectical-materialist theory of knowledge" and "Practice, knowledge, again practice, and again knowledge," and in conformity with the characteristics of the worker, peasant and soldier students, we applied the teaching method of going from the shallower to the deeper step by step, in combination with typical projects, products, technological processes and technical innovations in the tasks of production and scientific research. We correctly handled the relations between giving prominence to the key points, studying first what must be urgently applied and learning while doing on the one hand and systematic teaching on the other, between the specific and the general and between the basic courses and specialized courses.

The integration of learning while doing with systematic teaching broke down the former teaching system which was scholastic and multifarious, going from theory to theory. At the same time, it conforms with systematization and consistency, characteristics of the natural sciences. We divided the entire teaching process into several stages according to the typical tasks of different types to be accomplished. Theoretical courses were arranged in a planned way to fit in with the different stages for a systematic study, in accordance with the principle of going from the shallower to the deeper and from the easier to the more difficult. We applied the flexible methods such as the "interlaced study" and "concentrated study" to conform with different circumstances. In one period, we engaged ourselves mainly in fulfilling our tasks in production and scientific research, and we applied the method of doing while learning in

a planned way and made a penetrating study of the typical objects so as to infer from these. In another period, we mainly conducted theoretical teaching to raise, on the basis of the students' rich perceptual knowledge, their theoretical level, closely linking theory with practice and making study serve practical purposes. In the process of teaching, necessary check-ups should be made on the students' progress. Attention should be paid to promoting self-study and raising the ability to do scientific research, and importance should be attached to practising again under the guidance of theory.

The aim of integrating teaching with typical tasks is to grasp general laws through "dissecting a sparrow." In fact, every typical task has both its universality and particularity, universality residing in particularity. Therefore, we should on the one hand see to it that the typical tasks are properly selected, and on the other hand, pay attention to generalization and elevation on the basis of "dissecting a sparrow," advancing from the particular to the general and from practice to theory. According to our practical experience in transforming education, we hold that in selecting typical tasks we should strive to observe the following principles: giving prominence to proletarian politics, serving the practice in the three great revolutionary movements and embodying the key links in our country's present scientific research and production and the orientation of technical development; helping develop the main contents of specialized courses and illustrate general laws; and conforming with the process of cognition of going from the shallower to the deeper. The requirements for the professional training will be met through completing several typical tasks, from the simpler to the more complicated.

The integration of teaching with typical tasks did away with the clear-cut dividing line between the basic courses and the specialized courses. The basic courses should be closely integrated with practice and made to serve definite purposes. Some can be given together with specialized courses and form with them new courses according to need. As for those basic courses which are of greater use for the study of advanced courses and the lack of which makes advanced learning impossible, they should remain as separate courses.

The method of integrating teaching with typical tasks step by step is a fairly good method for solving the contradictions between the comprehensiveness of production and specialization in teaching, between the limitation of the typical tasks and the all-round requirements set for teaching. It integrates studying with applying, practice with creation, the selected spots with the area as a whole, the learning of book knowledge with the learning of industrial production. Thus the principle of condensed and concentrated teaching is realized, with the courses greatly reduced and simplified and schooling shortened.

In practising this new teaching method, it is essential to adhere to the mass line of "from the masses, to

the masses" in teaching. The teacher should serve the students. His role is to help raise the ability of the students to think for themselves, to study problems and to practise. Therefore, he should learn from the students and make investigations among them. With their high consciousness of class struggle and the struggle between the two lines, the worker, peasant and soldier students have the ability to make sharp criticism and possess rich practical experience. Coming into contact with teaching, they would immediately discern the influence of feudalism, capitalism and revisionism and the habitual force of Right conservatism and of keeping to the old track. They made a sharp contrast between the school and society. By comparison and discernment, they strongly criticized the slavish comprador ideology of trailing behind at a snail's pace, which had dominated the cultural and educational fronts for a long time. In view of this, we started vigorous activities in line with the principle "officers teach soldiers, soldiers teach officers and soldiers teach each other." Those who knew more acted as teachers and all taught and learnt from one another. The teaching method of elicitation and discussion was introduced and it brought into full play the initiative and creativeness of the worker, peasant and soldier students and helped establish new relations between teachers and students. In an experimental class, after the teacher lectured on the basic principles regarding tolerance on fit in relation to the design of a certain equipment, the worker students eagerly voiced their opinions and the class was alive. The students who had been turners analysed the influence of materials and processing conditions on tolerance; the former bench workers explained the tolerance allowed by fitting conditions. The heated discussion not only made the principles clear to all, but also brought about many suggestions to improve the design. This fully demonstrated the superiority of the new teaching method.

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Our great leader Chairman Mao teaches us: "China ought to make a greater contribution to humanity." The great task of thoroughly transforming the old educational system and creating an educational system of the proletariat, brand-new in the history of mankind, gloriously falls on the Chinese working class, poor and lower-middle peasants and revolutionary intellectuals. The revolution in education is a hard struggle. "We are confronted with arduous tasks and our experience is far from adequate. So we must be good at learning." We are determined to hold aloft the great red banner of Mao Tsetung Thought, strengthen Party leadership, resolutely accomplish all the fighting tasks set forth by the Ninth Party Congress, do a still better job in the living study and application of Chairman Mao's thinking on the revolution in education, carry this revolution through to the end and strive to build a socialist university of science and engineering.

(Originally published in "Hongqi," No. 8, 1970.)